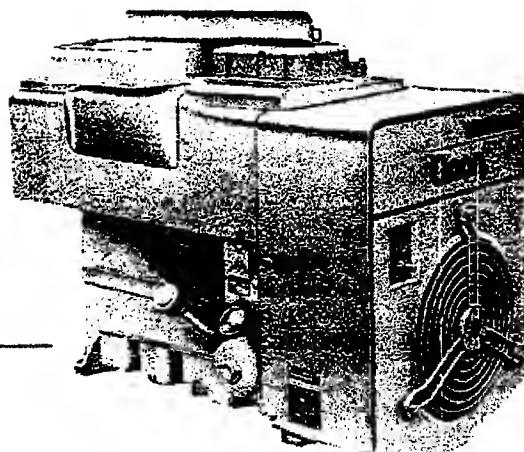


**Onan**

# **Parts Manual**

**JB-JC  
Engine**



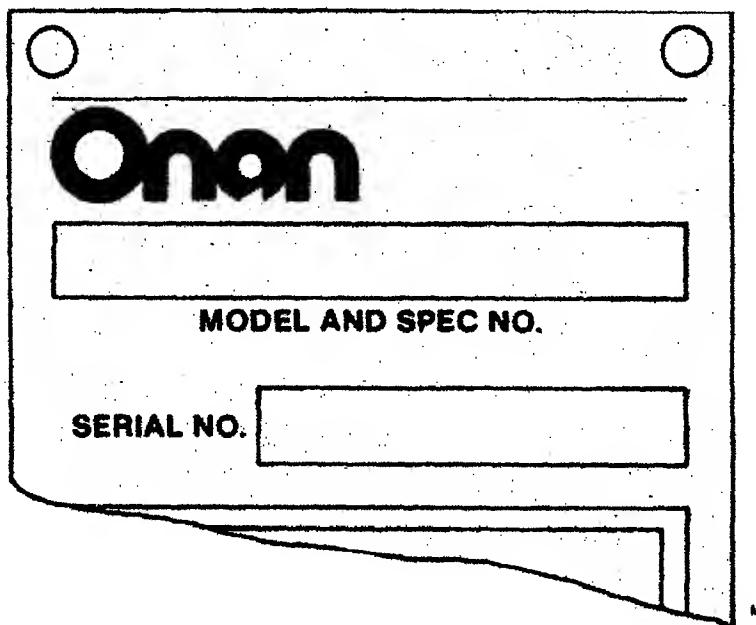
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**967-0254**  
**JB (SPEC A-T)**  
**JC (SPEC A-V)**  
9-74  
Printed in U.S.A.

## General Information

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO. and SERIAL NO. from the Onan nameplate



For handy reference, insert "YOUR" nameplate information in the spaces above.

This parts catalog applies to the standard J-Series Industrial Engines as listed in the Engine Data Table. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the *parts list* for the group. Parts illustrations represent typical items and do not necessarily portray a particular part number. Compare your engine nameplate MODEL and SPEC NO. with the Engine Data Table. Select the *quantity used* column (B or C in the last column) that applies to your engine MODEL and SPEC NO.

Many parts are interchangeable between the 2-cylinder and 4-cylinder engines. The quantity used per engine varies, therefore the quantity used column is sub-divided. Use column B for quantity used on 2-cylinder models and column C for quantity used on 4-cylinder models. Unless otherwise mentioned in the parts description, parts are interchangeable between the various models on which they are used as indicated by the quantity used column. Right and left sides are determined when facing the blower (front) end of the engine.

### ENGINE DATA TABLE

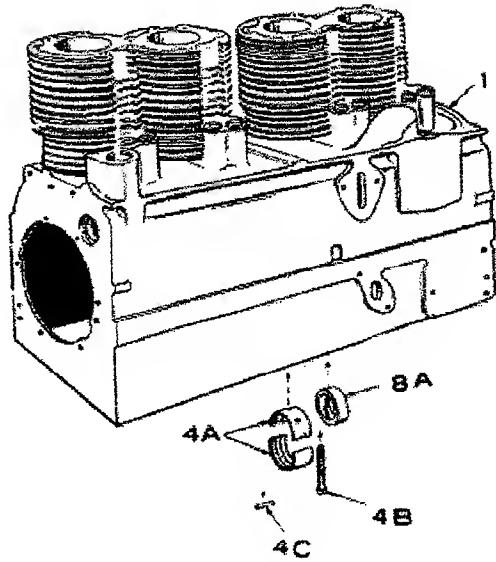
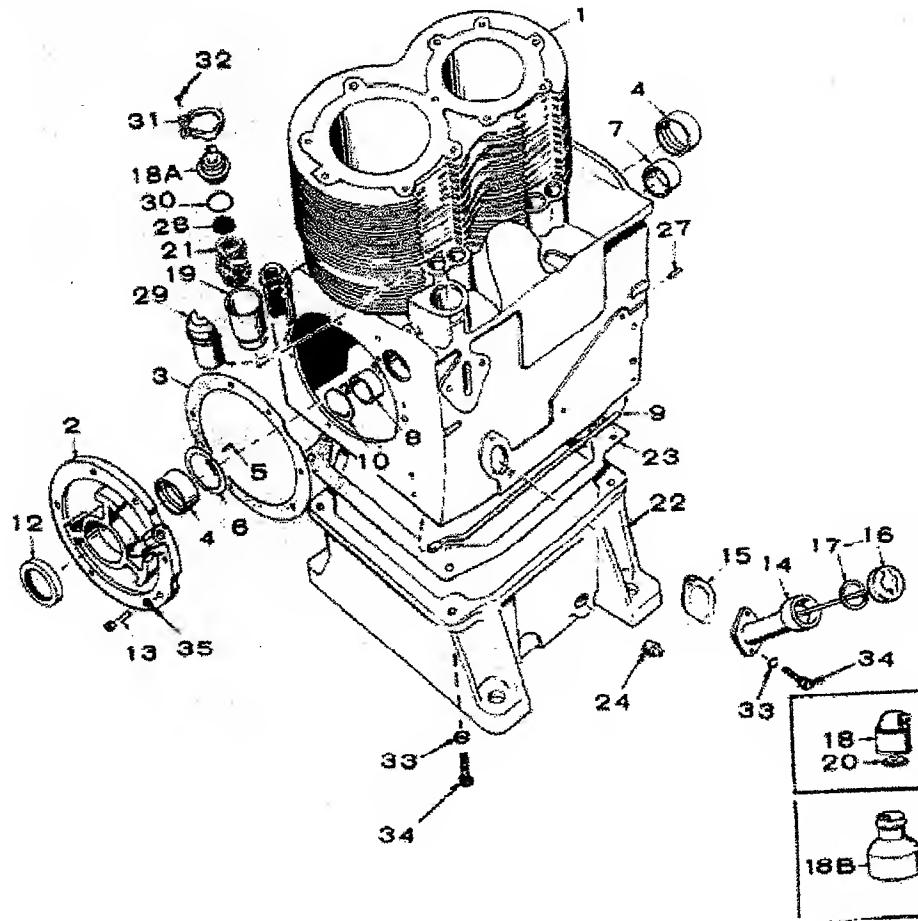
MODEL NO. AND SPECIFICATION	NUMBER OF CYLINDERS	QUANTITY USED COLUMN	MODEL NO. AND SPECIFICATION	NUMBER OF CYLINDERS	QUANTITY USED COLUMN
JB-S/*	2	B	JC-S/*	4	C
JB-MF/*‡	2	B	JC-MF/*‡	4	C
JB-MS/*	2	B	JC-MS/*	4	C

\* - The Specification Letter advances (A to B, B to C, etc.) with manufacturing changes.  
The Specification Number identifies optional equipment on special models.

‡ - MF Models have optional clutch.

NOTE: JB engines were formerly known as J60 and JC engines were J120.

## CRANKCASE AND OIL BASE GROUP

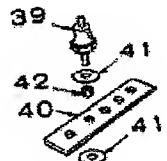
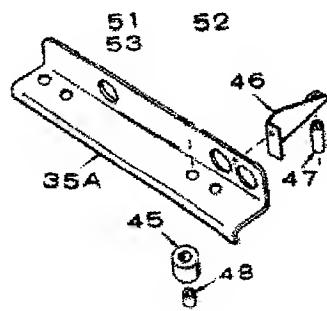
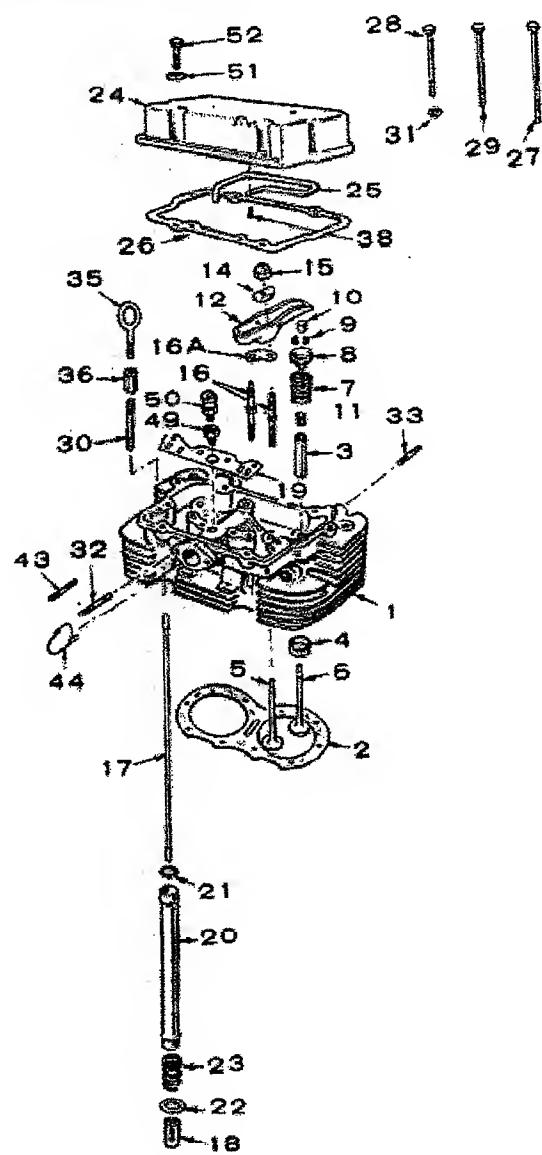


REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
1	110-1324	1	Block Assembly, Cylinder - Includes Parts Marked *
1	110-1329	1	Block Assembly, Cylinder - Includes Parts Marked * (Manual Start)
1	110-1328	1	Block Assembly, Cylinder - Includes Parts Marked * (Electrical Start)
2	101-0337	1	Plate, Bearing (Less Bearing and Pins)
3	101-0386	1	Gasket and Shim Kit, Rear Bearing Plate
4	BEARING, PRECISION, MAIN-FRONT OR REAR		
101-0359	2	2	"Standard
101-0359-02	2	2	.002" Undersize
101-0359-10	2	2	.010" Undersize
101-0359-20	2	2	.020" Undersize
101-0359-30	2	2	.030" Undersize
4A	BEARING HALF, PRECISION, MAIN-CENTER		
101-0361	2	2	"Standard
101-0361-02	2	2	.002" Undersize
101-0361-10	2	2	.010" Undersize
101-0361-20	2	2	.020" Undersize
101-0361-30	2	2	.030" Undersize
4B	101-0342	2	Bolt, Center Main Bearing Housing
4C	516-0149	2	Pin, Center Main Bearing Housing
5	516-0072	4	Pin, Crankshaft Thrust Washer
6	104-0420	2	Washer, Crankshaft Thrust
7	101-0363	1	Bearing, Precision Camshaft - Front - Standard Size Only
8	101-0365	1	Bearing, Precision Camshaft, Rear - Standard Size Only
8A	101-0364	1	Bearing, Precision Camshaft, Center - Standard Size Only
9	120-0563	1	Tube, Crankcase Oil
9	120-0586	1	Tube, Crankcase Oil - Front
9	120-0585	1	Tube, Crankcase Oil - Rear
10	517-0053	1	Plug, Camshaft Opening
12	509-0086	1	Seal, Oil, Crankshaft Rear
13	805-0019	6	Bolt, Place - Rear Bearing Plate (3/8-16 x 1-1/4")
14	123-0649	1	Tube, Oil Fill
15	123-0667	1	Gasket, Oil Fill Tube Mounting
16	123-0651	1	Cap and Indicator

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
16	123-0698	1	Cap and Indicator
17	123-0191	1	Gasket, Cap
18	CAP, BREATHER TUBE		
	123-0458	1	Spec A through D
	123-0787	1	Spec E through R
	123-0458	1	Spec A through E
	123-0787	1	Spec F through S
18A	123-1203	1	Cap and Valve Assembly, Breather - Begin Spec S
18B	123-1168	1	Cap, Breather - Begin Spec T
19	TUBE, BREATHER		
	123-0645	1	Spec A through R
	123-0952	1	Begin Spec S
19	123-0645	1	Tube, Breather - Spec A through S
20	123-0315	1	Valve, Breather - Spec A through R
21	123-1140	1	Baffle, Breather
21	123-1140	1	Baffle, Breather - Spec A through S
22	102-0448	1	Base, Oil
22	102-0477	1	Base, Oil
23	102-0451	1	Gasket, Base
23	102-0475	1	Gasket, Base
24	505-0056	1	Plug
27	516-0141	2	Pin, Gear Cover Locating Screen, Breather - Begin Spec S
28	123-1153	1	Insulator (Half), Breather - Begin Spec S
29	123-0998	2	Seal, "O" Ring - Breather - Begin Spec S
30	509-0117	1	Clamp, Breather Insulator - Begin Spec S
31	518-0268	1	Screw, Breather Clamp - Begin Spec S
32	809-0035	1	WASHER, LOCK
33	850-0045	2	850-0055
33	850-0045	2	Oil Fill Tube Mounting
33	850-0055	4	Oil Base Mounting
34	SCREW, HEX CAP		
	800-0021	2	800-0073
	800-0021	2	Oil Fill Tube Mounting
	800-0073	4	Oil Base Mounting
	800-0072	10	Oil Base Mounting
35	526-0245	6	Washer, Flat - Rear Bearing Plate Mounting
36	102-0588	1	Heater, Oil Base (Opt.)

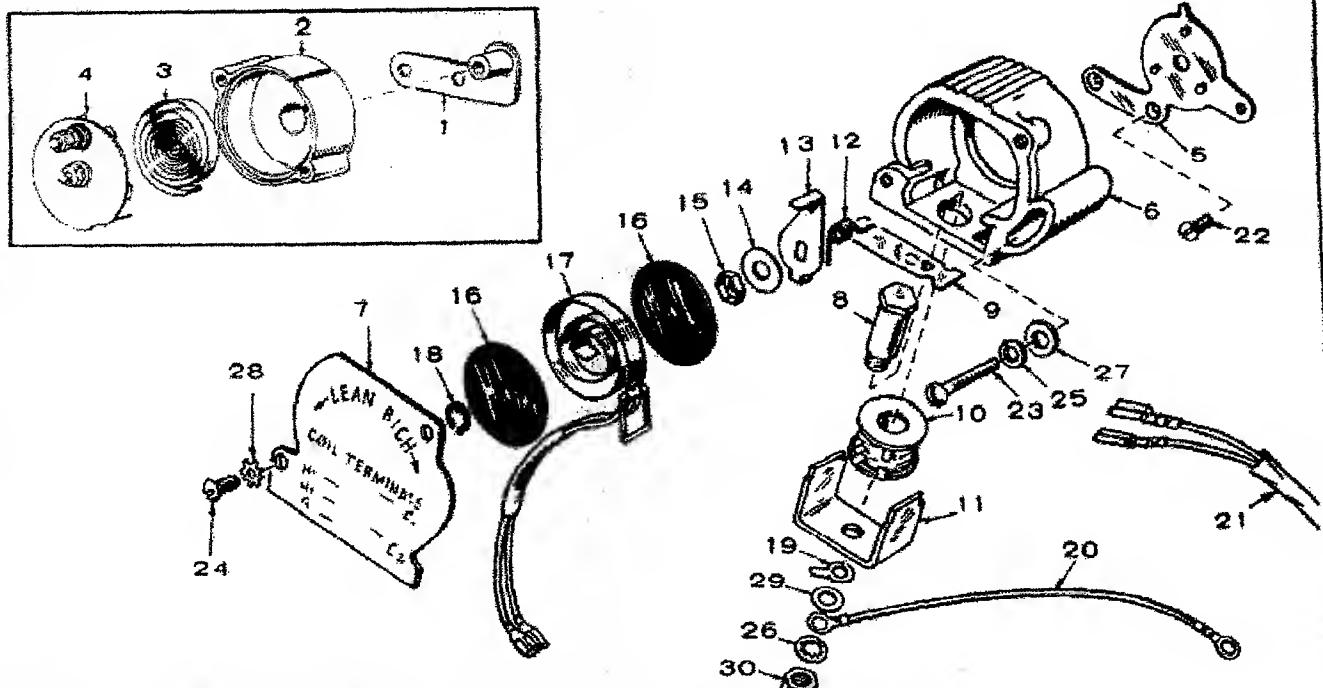
\* - Included in Cylinder Block Assembly.

## CYLINDER HEAD, VALVE AND ROCKER GROUP



REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
1	HEAD, CYLINDER				
	110-1212	1	2		Gasoline Engines
	110-1440	1	2		Gas & Gas-Gasoline Engines
2	110-1223	1	2		Gasket, Head
3	GUIDE, VALVE				Intake and Exhaust, Gasoline Engines
	110-1501	4	8		Standard
	110-1501-01	4	8		.001" Oversize
	110-1501-05	4	8		Intake, Gas and Gas-Gasoline Engines
	110-1501	2	4		Standard
	110-1501-01	2	4		.001" Oversize
	110-1501-05	2	4		.005" Oversize
					Exhaust, Gas and Gas-Gasoline Engines
	110-1392	2	4		Standard
	110-1392-01	2	4		.001" Oversize
	110-1392-05	2	4		.005" Oversize
4	INSERT, VALVE SEAT				Intake, Gasoline Engines
	110-1214	2	4		Standard
	110-1214-02	2	4		.002" Oversize
	110-1214-05	2	4		.005" Oversize
	110-1214-10	2	4		.010" Oversize
	110-1214-25	2	4		.025" Oversize
					Intake, Stellite, Gas-Gasoline Engines
	110-1287	2	4		Standard
	110-1287-02	2	4		.002" Oversize
	110-1287-05	2	4		.005" Oversize
	110-1287-10	2	4		.010" Oversize
	110-1287-25	2	4		.025" Oversize
					Exhaust
	110-1215	2	4		Standard
	110-1215-02	2	4		.002" Oversize
	110-1215-05	2	4		.005" Oversize
	110-1215-10	2	4		.010" Oversize
	110-1215-25	2	4		.025" Oversize
5	VALVE, INTAKE				
	110-1218	2	4		Gasoline Engines
	110-1286	2	4		Gas & Gasoline Engines
6	110-1219	2	4		Valve, Exhaust, Stellite
7	110-1221	4	8		Spring, Valve
8	110-1220	4	8		Retainer, Valve Spring
9	110-0858	8	16		Lock, Valve Spring Retainer
10	110-0859	4	8		Cap, Valve Stem
11	509-0090	2	4		Seal, Oil - Intake Valve, Includes Retainer Rings
12	ARM, ROCKER				
	115-0128	2	4		Exhaust
	115-0129	2	4		Intake
14	115-0127	4	8		Ball, Rocker Arm
15	115-0150	4	8		Locknut, Rocker Arm
16	115-0189	2	4		Stud Set, Rocker Arm (2 Studs and Lock)
16A	115-0184	2	4		Lock, Stud
17	115-0145	4	8		Rod, Valve Push (Aluminum)
18	TAPPET, VALVE				
	115-0132	4	8		Spec A through O
	115-0195	4	8		Begin Spec P
19	115-0196	1	2		Guide, Push Rod
20	115-0137	4	8		Shield, Push Rod
21	509-0084	8	16		Seal, Push Rod Shield
22	115-0155	8	16		Washer, Spring Retaining

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
23	115-0146	4	8		Spring, Shield Retainer
24	COVER, ROCKER				
	115-0134	1	2		Gasoline Engines (Less Oil Line)
	115-0173	1	2		Gas and Gas-Gasoline Engines (With Oil Line)
25	120-0628	1	2		Line, Oil, Rocker Cover - Gasoline Engines Only
26	115-0130	1	2		Gasket, Rocker Cover
27	110-1225	5	10		Screw (3/8-16 x 4-3/4") - Cylinder Head
28	110-0815	4	8		Screw (3/8-16 x 2"). Cylinder Head
29	110-1282	2	4		Screw (3/8-16 x 4"). Cylinder Head
30	520-0626	1	2		Stud, Cylinder Head (Only With Eyebolt and Extension Nut)
31	526-0174	6	12		Washer, Cylinder Head
32	520-0526	2	2		Stud, Carburetor
33	520-0608	4	8		Stud, Exhaust Manifold
35		1			Bolt, Lifting (Order 403-0707)
35A	403-0707	1			Bracket, Lifting - Includes Hardware
35A	403-0690	1			Bracket, Lifting
36	110-1304	1			Nut, Extension (Only on Models with Lifting Eye)
36	403-0620	2			Nut, Extension - Spec A through H
37		1			Bar Assembly, Lifting - Spec A through H Order 403-0690, (2) 800-0091 and (2) 850-0060
38	809-0042	1	2		Screw, Oil Line, Rocker Cover
39	309-0196	1	1		Switch, High Air Temperature (Optional)
40	309-0195	1	1		Bracket, High Air Temperature Switch (Optional)
41	508-0126	2	2		Washer, Insulator, Switch Mounting (Optional)
42	508-0127	1	1		Insulator, Sleeving - Air Temperature Switch (Optional)
43	520-0338	4			Stud, Intake Manifold
44	110-1312	2			Baffle, Fuel Distribution
45	402-0361	2			Cushion, Vibration (Not Used on Early Models)
46	403-0890	1			Brace, Lifting Bracket (Not Used on Early Models)
47	403-0826	1			Spacer, Lifting Bracket (Not Used on Early Models)
48	402-0362	2			Bushing, Spacer (Not Used on Early Models)
49	123-1169	2			Adapter, PCV Valve
50	123-1170	2			Valve, PCV (Positive Crankcase Ventilator)
51	WASHER, LOCK				
	850-0045	4	8		Rocker Cover Mounting
	850-0060	1			Lifting Bracket Mounting
52	SCREW, HEX CAP				
	800-0030	4	8		Rocker Cover Mounting
	800-0091	1			Lifting Bracket Mounting
	800-0094	2			Lifting Bracket Mounting
53	526-0100	2			Washer, Flat - Lifting Bracket Mounting

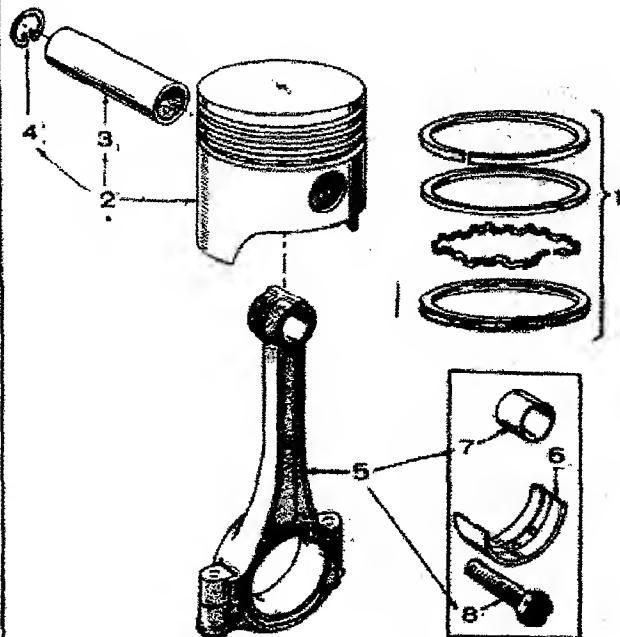


### ELECTRIC CHOKE AND THERMO-MAGNETIC CHOKE GROUP (OPTIONAL EQUIPMENT - BATTERY IGNITION ENGINES)

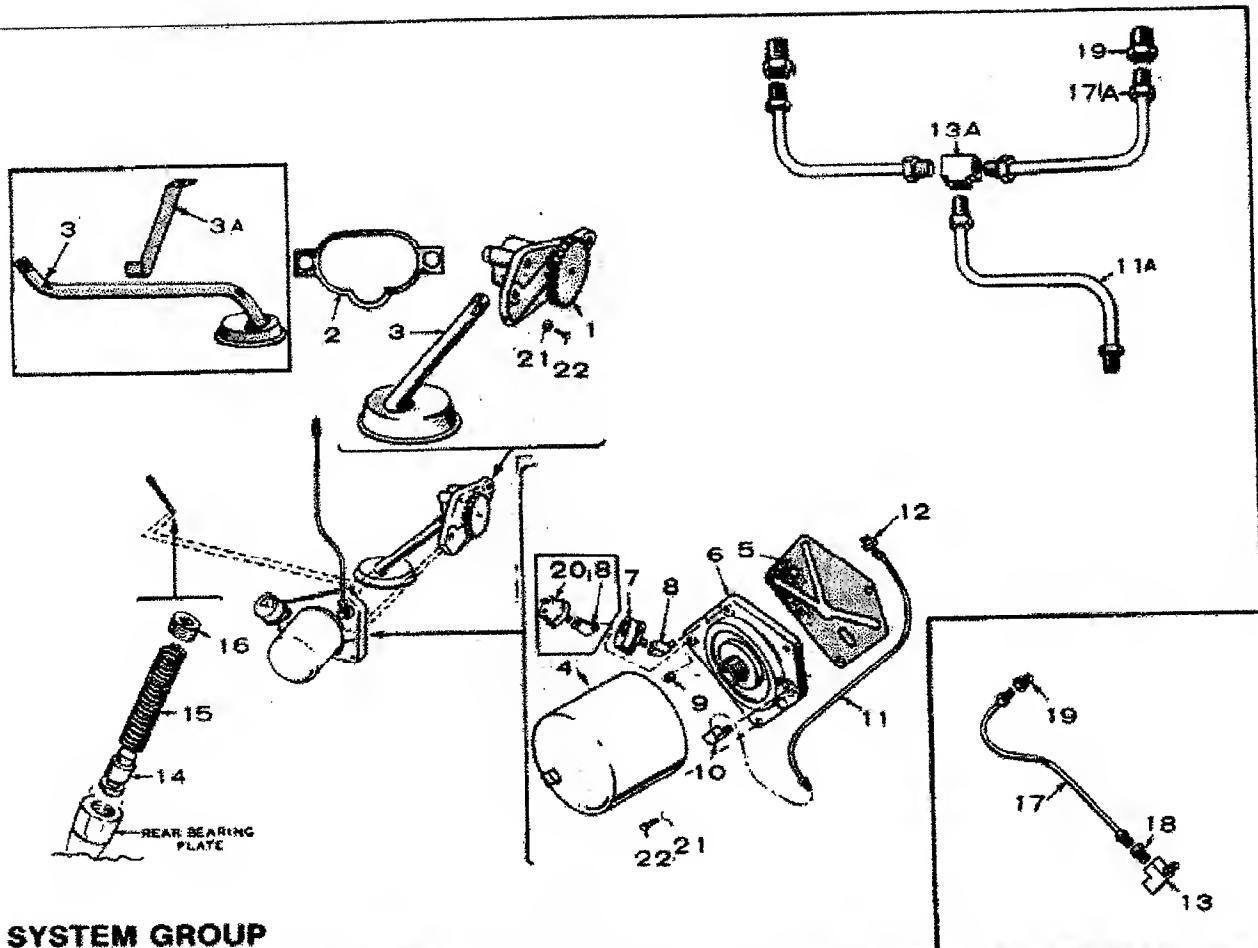
REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
1	153-0315	1	1	1	Adapter, Electric Choke	18	518-0129	1	1	1	Ring, Retaining
2	153-0324	1	1	1	Bracket, Electric Choke Mounting	19	332-0876	1	1	1	Terminal, Ground
3	153-0321	1	1	1	Element, Electric Choke	20	LEAD				
4	153-0325	1	1	1	Cover Assembly, Electric Choke	21	336-1550	1	1	1	Ground
5	153-0385	1	1	1	Plate, Choke Mounting	22	336-1551	1	1	1	Choke to Ignition Coil
6	153-0386	1	1	1	Body	23	338-0332	1	1	1	Harness, Choke
7	153-0389	1	1	1	Cover	24	SCREW, FLAT HEAD - CHOKE PLATE MOUNTING				
8	153-0391	1	1	1	Core, Solenoid	25	815-0161	2	2	2	Late Models (10-32 x 3/8")
9	153-0395	1	1	1	Armature	26	815-0266	2	2	2	Early Models (8-32 x 1/4")
10	307-0801	1	1	1	Coil Solenoid Assembly	27	813-0107	1	1	1	Screw, Round Head - Choke Body Mounting (10-32 x 1-1/4")
11	153-0392	1	1	1	Frame, Solenoid	28	812-0046	2	2	2	Screw, Round Head - Choke Cover Mounting (8-32 x 5/16")
12	SPRING					29	526-0008	1	1	1	Washer, Flat - Choke Body Mounting
	153-0387	1	1	1	Spec A through R	30	526-0022	1	1	1	Washer, Flat - Ground Terminal
	153-0425	1	1	1	Begin Spec S	31	850-0030	1	1	1	Washer, Lock - Choke Body Mounting
13	153-0390	1	1	1	Lever, Thermostat	32	854-0007	2	2	2	Washer, Shakeproof - Choke Cover Mounting
14	526-0018	1	1	1	Washer (17/64" I.D. x 5/8" O.D. x 1/16")	33	854-0017	1	1	1	Washer, Shakeproof - Ground Terminal
15	870-0134	1	1	1	Palmut (1/4-20)	34	862-0015	1	1	1	Nut, Hex - Ground Terminal (5/16-18)
16	153-0399	2	2	2	Insulator	35	153-0430	1	1	1	Choke Kit - Complete - For Engine Originally Equipped with this type Choke
17	HEATER ASSEMBLY AND BI METAL										
	153-0400	1	1	1	Spec A through R (NOTE: See next entry)						
	153-0422	1	1	1	Begin Spec S (NOTE: Recom- mended for Engines with this type of Choke Beginning Spec A through R. Also order 153-0426 Spring for These Engines)						

NOTE: Electric Choke Items 1 through 4 used on 2 cylinder engines  
Spec A through E and 4 cylinder engines Spec A through F. The Thermo-  
Magnetic Choke used on 2 Cylinder engines begins with Spec F and  
for 4 cylinder engines Spec G.

## PISTON AND CONNECTING ROD GROUP



REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
<b>1 RING SET</b>					
					Gasoline & Gas-Gasoline
	113-0089	2			Standard
	113-0089-10	2			.010" Oversize
	113-0089-20	2			.020" Oversize
	113-0089-30	2			.030" Oversize
					Gas Only and LPG - Spec A
					through R
	113-0089	2			Standard
	113-0089-10	2			.010" Oversize
	113-0089-20	2			.020" Oversize
	113-0089-30	2			.030" Oversize
					Gas Only and LPG - Begin
					Spec S
	113-0107	2			Standard
	113-0107-10	2			.010" Oversize
	113-0107-20	2			.020" Oversize
	113-0107-30	2			.030" Oversize
					All Models
	113-0107	4			Standard
	113-0107-10	4			.010" Oversize
	113-0107-20	4			.020" Oversize
	113-0107-30	4			.030" Oversize
					Chrome Plated - Optional
	113-0111	2	4		Standard
	113-0111-10	2	4		.010" Oversize
	113-0111-20	2	4		.020" Oversize
	113-0111-30	2	4		.030" Oversize
<b>2 PISTON &amp; PIN (Includes Retaining Rings)</b>					
					Gasoline - Gas-Gasoline - LPG -
					Natural Gas
	112-0092	2	4		Standard
	112-0092-10	2	4		.010" Oversize
	112-0092-20	2	4		.020" Oversize
	112-0092-30	2	4		.030" Oversize
<b>2A PISTON &amp; PIN (Includes Retaining Ring)</b>					
					Natural Gas Only - High Compression - Optional
	112-0106	2	4		Standard
	112-0106-10	2	4		.010" Oversize
	112-0106-20	2	4		.020" Oversize
	112-0106-30	2	4		.030" Oversize
<b>3 PIN, PISTON</b>					
	112-0086	2	4		Standard
	112-0085	4	8		Ring, Retaining, Pin
	114-0163	2	4		Rod Assembly, Connecting (Forged)
<b>6 BEARING HALF, CONNECTING ROD</b>					
	114-0164	4	8		Standard
	114-0164-02	4	8		.002" Undersize
	114-0164-10	4	8		.010" Undersize
	114-0164-20	4	8		.020" Undersize
	114-0164-30	4	8		.030" Undersize
	114-0170	4	8		Bushing, Half - Piston Pin, Connecting Rod - Semi- finished
	805-0012	4	6		Bolt (5/16-24 x 1-13/16")

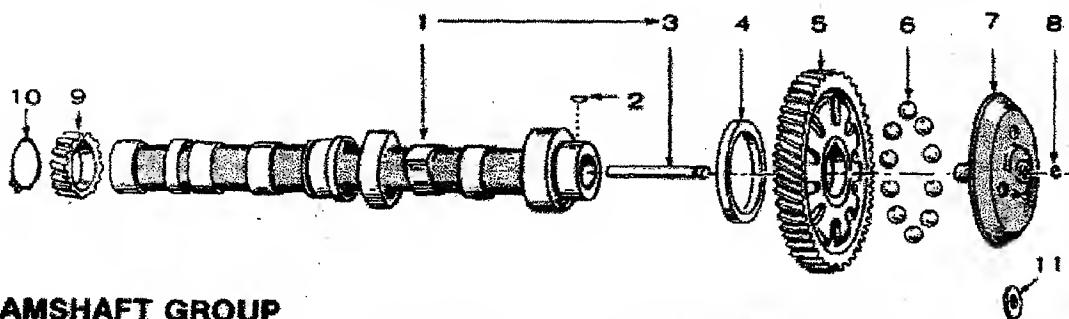


## OIL SYSTEM GROUP

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
1	120-0547	1	Pump Assembly, Oil	120-0637		1	Gasoline Engines - Spec P through S
2	120-0580	1	Gasket Kit, Pump	120-0562		1	Gas & Gas-Gasoline Engines - Prior to Serial #698178
3	CUP ASSEMBLY, OIL INTAKE			120-0672		1	Gas & Gas-Gasoline Engines - Begin Serial #698178
120-0551	1	All	120-0606		1	Gas & Gas-Gasoline Engines - Begin Serial #698178	
120-0551	1	Spec A through D	11A 120-0707		1	Line, Adapter to Cylinder Head Tee - Begin Spec T	
120-0601	1	Begin Spec E	12 CONNECTOR, INVERTED MALE - ADAPTER OIL LINE	502-0235	1	Gasoline Engines - Spec A through O (Restricted)	
3A 120-0602	1	Bracket, Intake Cup - Begin Spec E	502-0030		1	Gasoline Engines - Spec A through O	
4	122-0185	1	Filter (3-1/2" Long)	502-0274		1	Gasoline Engines - Begin Spec P (Restricted)
4	122-0193	1	Filter (5-1/2" Long) - Optional	502-0097		1	Gasoline Engines - Spec P through S
5	122-0188	1	Gasket, Filter Adapter	502-0235		1	Gas & Gas-Gasoline Engines - Prior to Serial #698178
6	122-0182	1	Adapter Assembly, Filter	502-0030		1	Gas & Gas-Gasoline Engines - Prior to Serial #698178
7	193-0006	1	Gauge, Oil Pressure	502-0274		1	Gas & Gas-Gasoline Engines - Begin Serial #698178 (Restricted)
8	502-0053	1	Elbow, Street 45°, (1) Oil Gauge, Also (1) used to Mount Optional LOKO Switch	502-0097		1	Gas & Gas-Gasoline Engines - Begin Serial #698178 Spec A through S
9	505-0057	1	Plug, Pipe 1/8", Adapter				
10	ELBOW, OIL LINE TO FILTER ADAPTER						
502-0019	1	1	Gasoline Engines - Spec A through O				
502-0037	1	1	Gasoline Engines - Begin Spec P				
502-0019	1	1	Gas & Gas-Gasoline Engines - Prior to Serial #698178				
502-0037	1	1	Gas & Gas-Gasoline Engines - Begin Serial #698178				
11	LINE, FILTER ADAPTER TO CYLINDER HEAD						
120-0562	1	1	Gasoline Engines - Spec A through O				
120-0672	1	1	Gasoline Engines - Begin Spec P				

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
13	502-0242	1			Tee, Restricted - Front Cylinder Head - Spec A through S
13A	502-0373	1			Tee, Cylinder Head - Begin Spec T
14	120-0539	1	1		Valve, By-Pass
15	120-0555	1	1		Spring, By-Pass
16	505-0274	1	1		Plug, Pipe 1/8", Counter- sunk Oil By-Pass
17	LINE, TEE TO REAR CYLINDER HEAD				
	120-0575	1			Gasoline Engines - Spec A through O
	120-0635	1			Gasoline Engines - Spec P through S
	120-0575	1			Gas & Gas-Gasoline Engines - Prior to Serial #698178
	120-0635	1			Gas & Gas-Gasoline Engines - Begin Serial #698178 Spec A through S
17A	120-0695	2			Line, Cylinder Head - Begin Spec T
18	502-0097	1			Connector, Inverted Male - Tee to Rear Cylinder Head Oil Line - Spec A thru S

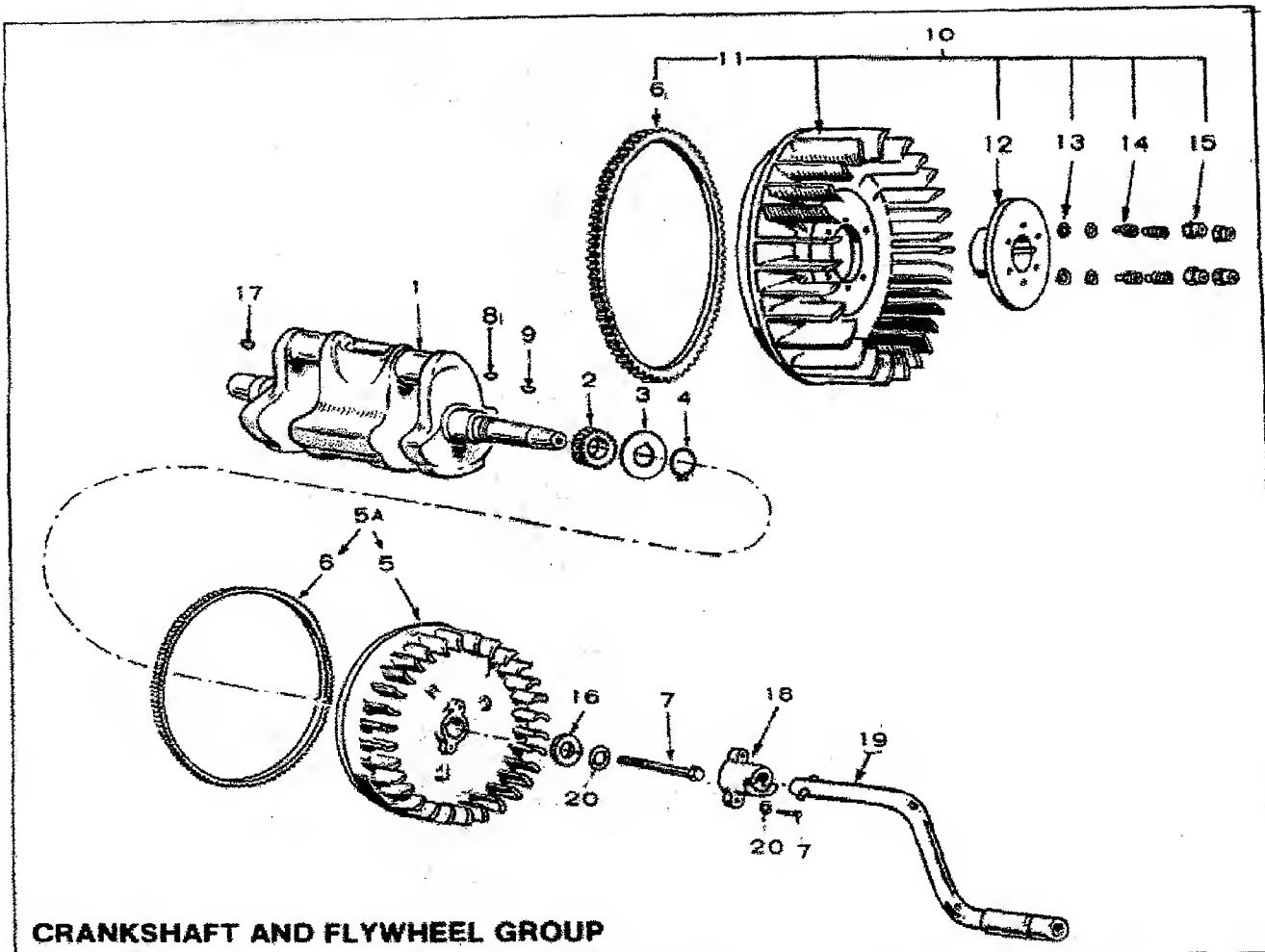
REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
19	CONNECTOR, INVERTED MALE - REAR CYLINDER HEAD				
	502-0097	1			Gasoline Engines - Spec A through O
	502-0274	1			Gasoline Engines - Spec P through S (Restricted)
	502-0394	2			All - Begin Spec T (Restricted)
	502-0097	1			Gas & Gas-Gasoline Engines - Prior to Serial #698178
	502-0274	1			Gas & Gas-Gasoline Engines - Begin Serial #698178 Spec A through S (Restricted)
20	309-0064	1	1		Switch, Low Oil Pressure (Optional)
	309-0169	1	1		Switch, Low Oil Pressure (Optional)
21	WASHER, LOCK				
	850-0045	2			Oil Pump Mounting
	850-0045	3			Oil Filter Adapter Mounting
22	SCREW, HEX CAP				
	800-0030	2			Oil Pump Mounting
	800-0028	3			Oil Filter Adapter Mounting



CAMSHAFT GROUP

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
1	CAMSHAFT, INCLUDES CENTER PIN				
	105-0219	1			Spec A through O
	105-0272	1			Begin Spec P
	105-0240	1			Spec A through O
	105-0275	1			Begin Spec P
2	515-0001	2	2		Key, Camshaft Gear
2	515-0001	1			Key, Distributor Drive
					Gear - Battery Ignition
3	150-0075	1	1		Pin, Camshaft Center
4	105-0205	1	1		Washer, Camshaft Thrust
5	GEAR, CAMSHAFT - INCLUDES FLYBALL SPACER AND PLATE				
	205-0218	1			Begin Spec B
	105-0223	1			Spec A Only
	105-0218	1			All

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
6	BALL, FLY - GOVERNOR				
	510-0046	12			Spec A Only
	510-0046	10			Begin Spec B
	510-0046	10			All
7	CUP, GOVERNOR				
	150-0775	1			All
	150-0833	1			Spec A Only
	150-0857	1			Begin Spec B
8	150-0078	1			Ring Snap - Center Pin
9	166-0302	1			Gear, Distributor Drive - Battery Ignition
10	518-0195	1	1		Ring Snap, Drive Gear - Battery Ignition
11	150-0859	1			Washer, Thrust - Governor Yoke - Begin Spec B

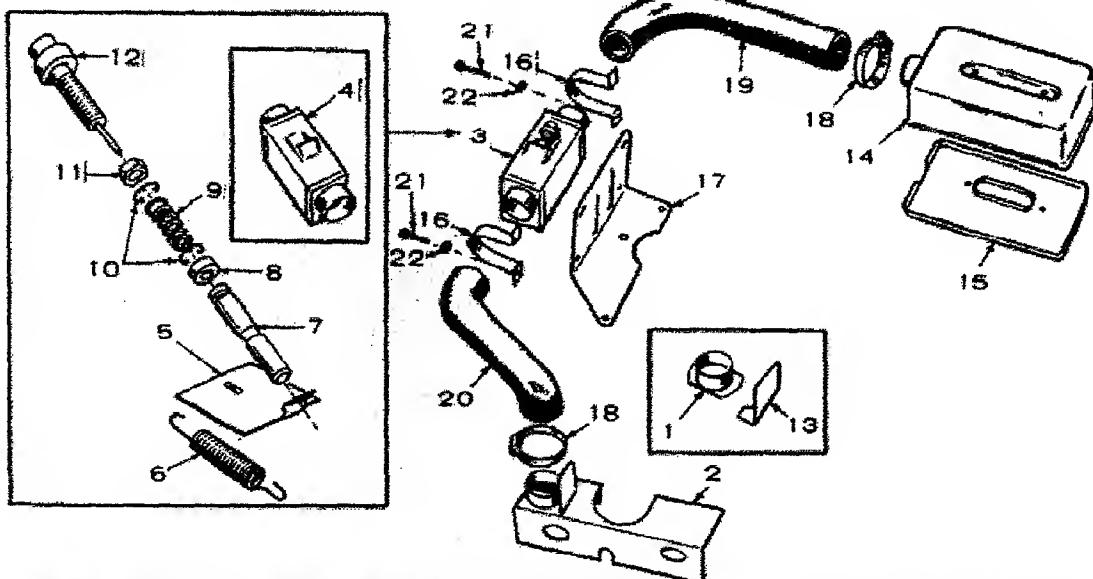


## CRANKSHAFT AND FLYWHEEL GROUP

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
<b>1 CRANKSHAFT</b>			
	104-0438	1	Standard Engines
	104-0439	1	Engine with Clutch
		1	Engine with Auto Cycle Starter
	104-0458	1	Standard Engine
	104-0460	1	Engine with Clutch
		1	Engine with Auto Cycle Starter
2	104-0418	1	1 Gear
3	104-0416	1	1 Washer, Retainer
4	518-0188	1	1 Ring, Lock
5	FLYWHEEL		
	160-0692	1	Magneto Ignition, Manual Start and Auto Cycle Start - Standard
	104-0473	1	Battery Ignition, Auto Cycle Start - Optional
<b>5A FLYWHEEL, INCLUDES RING GEAR</b>			
	160-0877	1	Magneto Ignition - Optional
	104-0472	1	Battery Ignition - Standard
	191-0403	1	Battery Ignition (Machined for Charging Alternator Rotor) - Optional
6	104-0423	1	1 Gear, Ring
7	HEX CAP		
	800-0500	1	1 Flywheel Mounting
	800-0050	2	2 Crankdog Mounting
8	515-0001	1	1 Key, Gear
9	515-0153	1	1 Key, Flywheel to Crankshaft

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
<b>10 FLYWHEEL, INCLUDES HUB ASSEMBLY</b>			
	134-1446	1	Magneto Ignition, Manual Start and Auto Cycle Start - Optional
	134-1446	1	Battery Ignition, Auto Cycle Start - Optional
<b>11 FLYWHEEL, INCLUDES RING GEAR AND HUB ASSEMBLY</b>			
	134-1408	1	Battery Ignition - Standard
	134-1556	1	Battery Ignition (Machined for Charging Alternator Rotor) - Optional
12	134-1401	1	Hub, Flywheel
13	526-0187	4	Washer, Special, Hub to Flywheel
	104-0543	4	Spacer and Washer Assembly, Hub to Flywheel
15	115-0150	4	Nut, Stover (3/8-24) - Hub to Flywheel
16	526-0185	1	Washer, Flywheel Mounting
17	515-0003	1	Key, Crankshaft, Power Take-Off
18	104-0429	1	Crankdog, Manual Start Engines
19	192-0350	1	Crank, Hand - Manual Start Engines
20	192-0268	1	Crank, Hand - Manual Start Engines
	850-0055	1	Flywheel Mounting
	850-0050	2	Crankdog Mounting

\* - Refer to factory giving complete Model, Spec. and  
Serial Number.

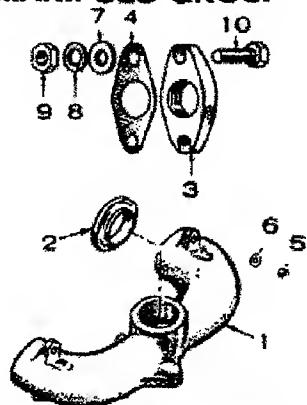


### CARBURETOR AIR HEATER GROUP (OPTIONAL EQUIPMENT) - LATE MODELS

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
<b>KIT, AIR HEATER</b>							
140-0890	1		Engines with Duct or with Duct and Shutter	7	140-0784	1	1 "Plunger, Temperature Control
140-0893	1		Engines with Duct or with Duct and Shutter	8	140-0808	1	1 "Spacer, Vernatherm
140-0891	1		Engines without Duct or Shutter	9	140-0787	1	1 "Spring, Vernatherm
140-0894	1		Engines without Duct or Shutter	10	518-0205	1	1 "Ring, Retaining
1 133-0187	1	1	Adapter, Hose - Air Outlet - Engines with Duct or Duct and Shutter	11	870-0195	1	1 "Nut, Locking - Vernatherm
2 133-0191	1		Plenum, Manifold Heater - Engines without Duct or Shutters	12	309-0181	1	1 "Vernatherm, Temp. Control
2 133-0192	1		Plenum, Manifold Heater - Engines without Duct or Shutters	13	140-0789	1	1 Shield, Air Outlet Hose - Engines with Duct or Duct and Shutter
3 140-0788	1	1	Control Assembly, Temperature - Includes Parts Marked *	14	140-0790	1	1 Cover, Air Cleaner
4 140-0785	1	1	*Housing, Temperature Control	15	140-0791	1	1 Pan, Air Cleaner
5 140-0782	1	1	*Shutter, Temperature Control	16	140-0821	2	2 Clamp, Temperature Control Support
6 140-0786	1	1	*Spring, Shutter Control	17	140-0822	1	1 Support, Temperature Control
				18	503-0311	2	2 Clamp, Hose
				19	503-0474	1	1 Hose, Control to Air Cleaner
				20	503-0475	1	1 Hose, Control to Air Cleaner
				21	813-0105	2	1 Hose, Adapter (or Plenum) to Control
				22	854-0010	2	2 Screw, Round Head - 10-32 x 1
							2 Washer, Lock

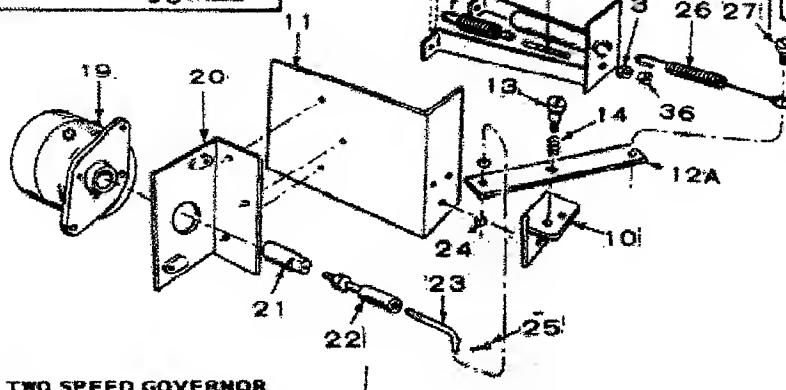
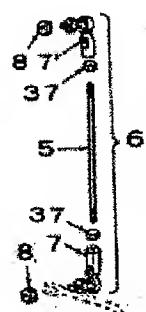
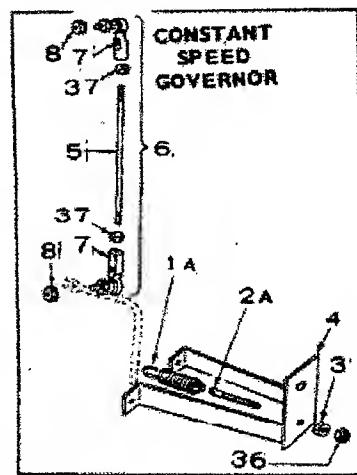
\* - Included in Control Assembly.

### MANIFOLD GROUP

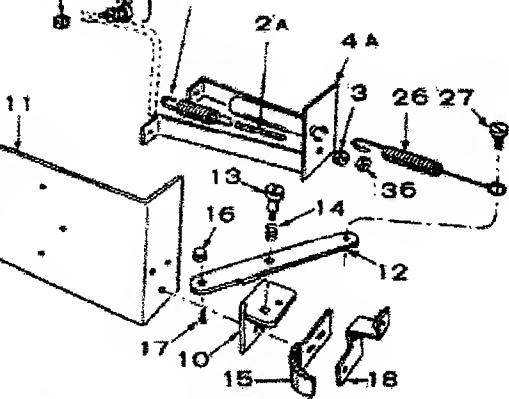


REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
1	154-0633	1	Manifold, Exhaust
1	154-0714	1	Manifold, Exhaust
2	154-0463	2	4 Gasket, Exhaust Manifold to Head
3	155-0782	1	Flange, Exhaust Manifold Outlet
4	154-0738	1	Gasket, Exhaust Outlet
5	110-0445	4	4 Nut, Hex, Manifold Mounting
6	526-0045	4	4 Washer, Flat - Manifold Mounting
7	526-0127	2	2 Washer (3/8")
8	850-0050	2	2 Washer (3/8"), Lock
9	862-0003	2	2 Nut (3/8-16)
10	850-0054	2	2 Screw (3/8-16 x 2")

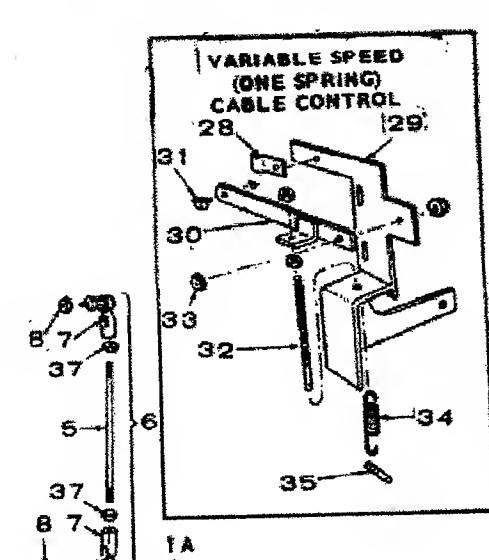
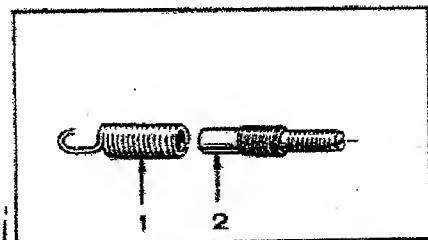
## GOVERNOR AND THROTTLE CONTROL GROUP



TWO SPEED GOVERNOR

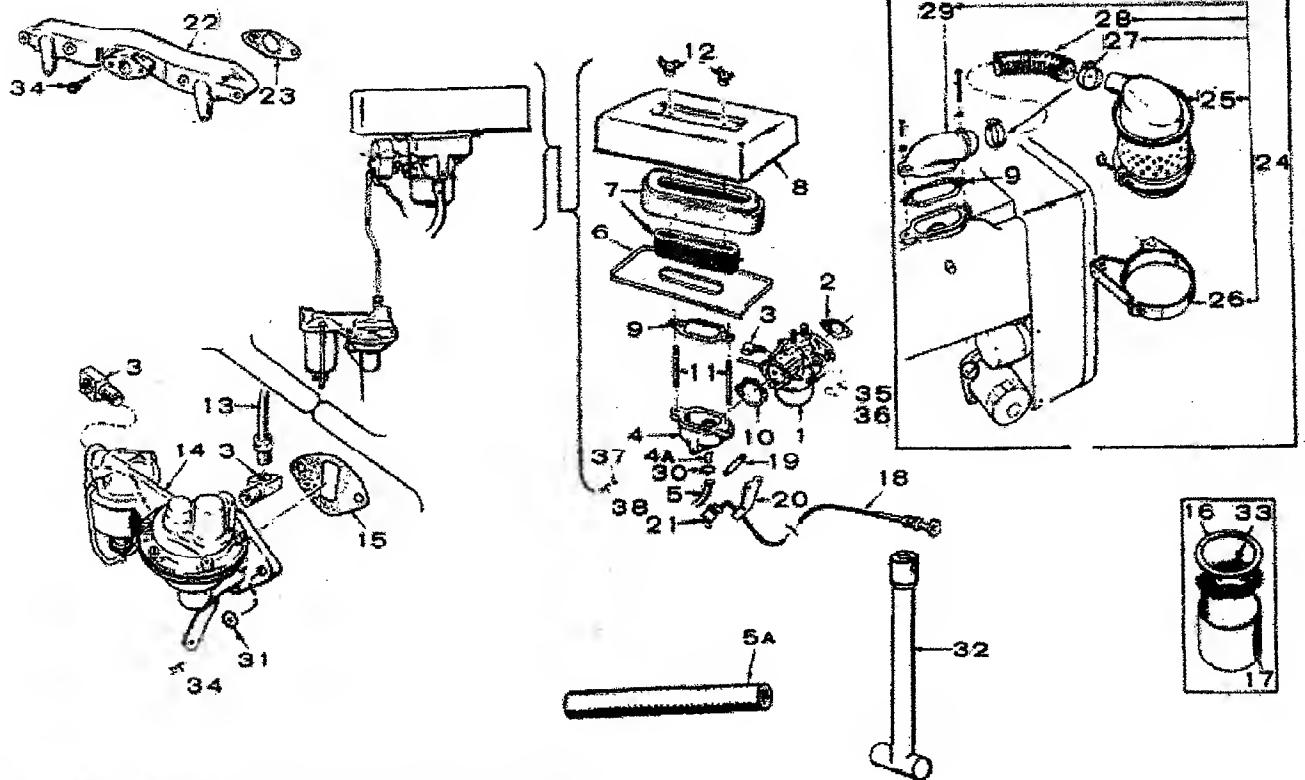


VARIABLE SPEED GOVERNOR  
(MANUAL CONTROL AT ENGINE  
OR CABLE CONTROL)



REF. NO.	PART NO.	QTY.	PART NO.	PART DESCRIPTION
		B	C	
1	SPRING, GOVERNOR			
	150-0821	1		Spec A through Q
	150-0837	1		Spec A Only
	150-0861	1		Spec B through Q
1A	SPRING, GOVERNOR			
	150-1084	1		Begin Spec R
	150-1085	1		Begin Spec R
2	STUD, GOVERNOR ADJUSTING			
	150-0822	1		Spec A through Q
	150-0851	1		Spec A Only
	150-0863	1		Spec B through Q
2A	STUD, GOVERNOR ADJUSTING			
	150-1082	1		Begin Spec R
	150-1083	1		Begin Spec R
3	NUT, GOVERNOR ADJUSTING			
	104-0091	1	1	Spec A through Q
	862-0003	1	1	Begin Spec R
4	BRACKET ASSEMBLY, GOVERNOR-CONSTANT SPEED AND VARIABLE SPEED (One Spring) GOVERNOR			
	150-0813	1		Spec A through Q
	150-1108	1		Begin Spec R
	150-0815	1		Spec A through Q
	150-1109	1		Begin Spec R
4A	BRACKET ASSEMBLY- VARIABLE SPEED (Two Spring) AND TWO SPEED GOVERNOR- OPTIONAL EQUIPMENT			
	150-0912	1		Spec A through Q
	150-1106	1		Begin Spec R
	150-0913	1		Spec A through Q
	150-1111	1		Begin Spec R
5	ROD, GOVERNOR CONTROL			
	150-0964	1		Spec A through Q
	150-1075	1		Begin Spec R
	150-0841	1		Spec A through Q
	150-1069	1		Begin Spec R
6	LINKAGE ASSEMBLY, GOVERNOR			
	150-0965	1		Spec A through Q
	150-1076	1		Begin Spec R
	150-0849	1		Spec A through Q
	150-1070	1		Begin Spec R
7	JOINT, BALL			
	150-0974	2	1	Spec A through Q (Early 2 Cylinder Engines used 1 only)
	150-1081	2	2	Begin Spec R
8	870-0131	2	2	Nut, Keps - Ball Joint to Governor Arm
10	150-0916	1	1	Bracket, Control Arm - Variable Speed (2 Spring) & 2 Speed Governor - Optional Equipment
11	150-0917	1	1	Bracket, Governor Control Mounting - Variable Speed (2 Spring) and 2 Speed Governor - Optional Equipment
12	150-0908	1	1	Lever, Speed Control - Variable (2 Spring) Governor - Optional Equipment
12A	150-0904	1	1	Lever, Solenoid Control - 2 Speed Governor - Optional Equipment
13	150-0915	1	1	Screw, Speed Control Lever and Spring Mounting Variable Speed (2 Spring) and 2 Speed Governor - Optional Equipment
14	150-0907	1	1	Spring, Speed Control Lever, Tension, Variable Speed (2 Spring) and 2 Speed Governor - Optional Equipment
15	150-0914	1	1	Ratchet, Speed Control, Variable Speed (2 Spring) Governor (Manual Control at Engine) - Optional Equipment

REF. NO.	PART NO.	QTY.	PART NO.	PART DESCRIPTION
		B	C	
16	153-0014	1	1	Nut, Cable to Lever, Variable Speed (2 Spring) Governor (Manual Control with Cable) Optional Equipment
17	810-0074	1	1	Screw, Cable to Lever, Variable Speed (2 Spring) Governor (Manual Control with Cable) Optional Equipment
18	150-0978	1	1	Bracket, Stop, Variable Speed Governor - Optional Equipment
19	307-0628	1	1	Solenoid, Governor Control, Two Speed Governor - Optional Equipment
20	150-0906	1	1	Bracket, Solenoid Mounting, Two Speed Governor - Optional Equipment
21	150-0905	1	1	Plunger, Solenoid, Two Speed Governor - Optional Equipment
22	150-0925	1	1	Joint, Ball, Two Speed Governor - Optional Equipment
23	150-0923	1	1	Rod, Solenoid to Lever - Two Speed Governor - Optional Equipment
24	526-0116	2	2	Washer, Solenoid Rod - Two Speed Governor - Optional Equipment
25	516-0036	1	1	Key, Cotter (1/16 x 3/8") Solenoid Rod, Two Speed Governor - Optional Equipment
26	SPRING, GOVERNOR CONTROL, TWO SPEED - OPTIONAL EQUIPMENT			
	150-0919	1		Speed Range 1200 to 2400 rpm (1-1/4" Coil)
	150-0920	1		Speed Range 1200 to 1800 rpm or 1800 to 2500 rpm (2-3/32" Coil)
	150-0922	1		Speed Range 1200 to 1800 rpm (1-15/16" Coil)
	150-0921	1		Speed Range 1200 to 2400 rpm or 1800 to 2500 rpm (1-13/32" Coil)
27	150-0918	1	1	Screw, Spring to Lever, Variable (2 Spring) Speed & Two Speed Governor - Optional Equipment
28	150-0942	1	1	Clamp, Speed Control Cable - Variable Speed (1 Spring) Governor - Optional Equipment
29	150-0940	1	1	Bracket, Governor Spring & Variable Speed Arm - Variable Speed (1 Spring) Governor - Optional Equipment
30	150-0973	1	1	Arm and Bracket, Variable Speed (1 Spring) Governor - Optional Equipment
31	142-0113	1	1	Swivel, Variable Speed (1 Spring) Governor - Optional Equipment
32	150-0945	1	1	Stud, Speed Adjustment - Variable Speed (1 Spring) Governor - Optional Equipment
33	152-0041	1	1	Washer, Tension - Variable Speed (1 Spring) Governor - Optional Equipment
34	151-0206	1	1	Spring, Governor - Variable Speed (1 Spring) Governor - Optional Equipment
35	150-0900	1	1	Arm, Governor Spring Control - Variable Speed (1 Speed) Governor - Optional Equipment
36	870-0133	1	1	Pawl, Governor Adjustment Locking
37	870-0188	2	2	Pawl, Governor Link Locking



## FUEL SYSTEM GROUP (GASOLINE)

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
<b>1 CARBURETOR, GASOLINE - MANUAL START ENGINES</b>			
141-0763 1 Spec A through Q			
141-0693 1 Begin Spec R			
141-0756 1 Spec A through Q			
141-0686 1 Begin Spec R			
<b>1 CARBURETOR, GASOLINE - ELECTRIC START ENGINES</b>			
141-0762 1 Spec A through Q			
141-0692 1 Begin Spec R			
141-0759 1 Spec A through Q			
141-0685 1 Begin Spec R			
2 154-0733 1 Gasket, Carburetor Flange			
<b>3 ELBOW, INVERTED</b>			
502-0002 2 Fuel Pump Inlet and Outlet			
502-0065 1 Carburetor Inlet			
502-0002 1 Carburetor Inlet - Manual Start and Electric Start - Spec A through F			
502-0065 1 Electric Start - Begin Spec G			
<b>4 ADAPTER, AIR CLEANER (Includes Nylon Tube)</b>			
140-0647 1 Spec A through Q			
140-0933 1 Begin Spec R			
4A 123-0732 1 Tube, Nylon			
<b>5 HOSE, BREATHER TO AIR CLEANER ADAPTER</b>			
503-0384 1 Spec A through D			
503-0395 1 Spec E through R			
503-0543 1 Begin Spec S			
503-0389 1 Spec A through E			
503-0416 1 Spec F through S			
503-0471 1 Begin Spec T			
5A 503-0558 1 Insulator, Breather Hose - Begin Spec S			

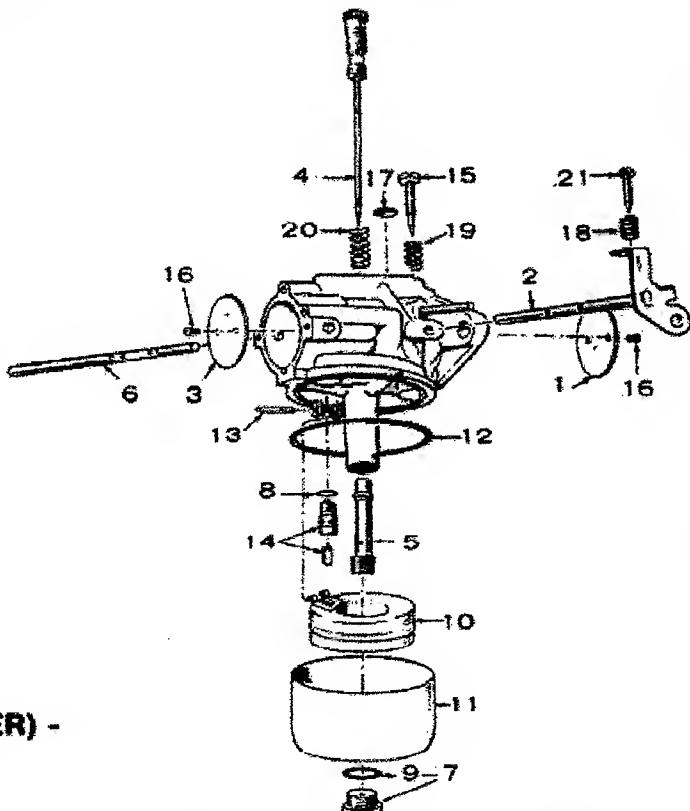
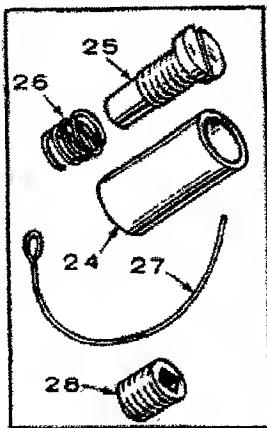
REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
6	140-0595	1	Pan, Air Cleaner
7	140-0636	1	Element and Retainer, Air Cleaner
8	140-0594	1	Cover, Air Cleaner
9	140-0584	1	Gasket, Air Cleaner
10	GASKET, ADAPTER TO CARBURETOR		
140-0585	1	1	Spec A thru Q
140-0921	1	1	Begin Spec R
11	520-0621	2	Stud, Air Cleaner
12	865-0020	2	Nut (Self Sealing) Air Cleaner
13	LINE, PUMP TO CARBURETOR		
149-0739	1	1	Spec A through Q
149-1095	1	1	Begin Spec R
149-0744		1	Spec A through Q - Manual Start
149-1016		1	Spec A through Q - Electric Start
149-1094		1	Begin Spec R - Manual Start
149-1099		1	Begin Spec R - Electric Start
14	PUMP, FUEL		
149-0805	1	1	Manual Start Engine
149-0803	1	1	Electric Start Engine
15	149-0792	1	Gasket, Fuel Pump Mounting
16	149-0517	1	Gasket, Fuel Pump Bowl
17	149-0116	1	Bowl, Fuel Pump
18	153-0328	1	Choke, Manual
18	153-0332	1	Choke, Manual
19	153-0326	1	Arm, Manual Choke
20	153-0327	1	Bracket, Manual Choke
21	518-0176	1	Clip, Manual Choke Arm
22	MANIFOLD, INTAKE		
154-0724		1	Spec A Only
154-0749		1	Begin Spec B

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
23	154-0733	2	Gasket, Intake Manifold
24	140-0677	1	Conversion Kit, Oil Bath Air Cleaner - Includes parts marked *
25	140-0500	1	*Cleaner, Air - Oil Bath - Optional Equipment
26	140-0519	1	Band, Air Cleaner - Optional Equipment
27	503-0365	2	*Clamp, Air Cleaner Hose - Optional Equipment
28	503-0395	1	Hose, Air Cleaner to Adapter - Optional Equipment
29	140-0645	1	*Adapter, Oil Bath Air Cleaner - Optional Equipment
30	503-0171	2	Clamp, Breather Hose
31	149-1307	2	Washer, Lock - Fuel Pump Mounting
32	141-0727	1	Rod, Carburetor Adjusting
33	149-0463	1	Screen, Fuel Pump
34	800-0027	2	Screw, Hex Cap - Fuel Pump Mounting

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
35	854-0017	2	Washer, Shakeproof - Carburetor Mounting
36	868-0002	2	Nut, Carburetor Mounting
37	850-0030	2	Washer, Lock - Air Cleaner Adapter Mounting
38	813-0108	2	Screw, Air Cleaner Adapter Mounting
39	813-0098	2	Screw, Choke Mounting Mounting Bracket (10-32 x 3/8")
40	850-0030	2	Washer, Lock - Choke Mounting Bracket (#10)
41	870-0131	1	Nut, Kep (10-32)
42	502-0020	1	Elbow, Street Pipe
43	504-0007	1	Valve, Shut-off
	149-1048	1	Repair Kit, Fuel Pump (Includes Diaphragm Assembly, Valves and Gaskets)

\* - Included in Optional 140-0677 Oil Bath Air  
Cleaner Conversion Kit.

£ - See Separate Group for Components and Service Kits.



### CARBURETOR PARTS GROUP (CARTER) - SPEC A THROUGH Q

NOTE: See separate group for Zenith Carburetor parts used beginning Spec R.

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
			CARBURETOR, GASOLINE (Zenith Replaces Carter Carburetor)	3	143-0220	1	1 Valve, Choke
	141-0763	1	Manual Choke	4	**NEEDLE, IDLE JET AND HIGH SPEED ADJUSTING		
	141-0762	1	Electric Choke	143-0205	1		For Gasoline Carburetor
	141-0756	1	Manual Choke				Spec A through D (**)
	141-0759	1	Electric Choke - Optional	143-0295	1		For Gasoline Carburetor -
							Spec E through P (†**)
			CARBURETOR, GAS-GASOLINE - OPTIONAL	143-0295	1		For Optional Gas-Gasoline
	141-0761	1	Manual Choke	143-0235	1		Carburetor (†)
	141-0760	1	Electric Choke				Needle, Idle Jet and High
	141-0755	1	Manual Choke				Speed Adjusting (Not used
	141-0758	1	Electric Choke				on Gas Carburetor) (§**)
	141-0764	1	Carburetor, Gas - Optional	5	**NOZZLE		For Gasoline Carburetor -
	141-0757	1	Carburetor, Gas - Optional	143-0206	1		Spec A through D
			REPAIR KIT, CARBURETOR - (Includes Parts Marked **)	143-0296	1		For Gasoline Carburetor -
	143-0200	1	For Gasoline Carburetor -	143-0296	1		Spec E through P (†)
			Spec A through D	143-0237	1		For Optional Gas-Gasoline
	143-0298	1	For Gasoline Carburetor -				Carburetor (†)
	143-0298	1	Spec E through P				Nozzle (Not used on Gas Only
			For Optional Gas-Gasoline				Carburetor) (§**)
	143-0241	1	Carburetor -	6	SHAFT, CHOKE		Electric Choke - (J60 -
			Includes Parts Marked **				Spec A through E & J120 -
			(Not used for Gas Only				Spec A through F)
			Carburetor)	143-0207	1	1	Gasoline Carburetor
	143-0201	1	1 Gasket Kit, Carburetor	143-0232	1	1	Gas-Gasoline Carburetor,
			(Includes Parts Marked *)				Thermo-Magnetic Choke
			(§†**)				(J60 - Spec F through P and
	141-0281	1	1 Gasket, Carburetor Flange				J120 - Spec G through P)
			(Illustrated in Fuel System	6	143-0221	1	1 Shaft and Lever, Choke -
			Group) (*)				Manual Choke
1	143-0202	1	1 Valve, Throttle	143-0315	1	1	Gasoline Carburetor
2	SHAFT AND LEVER, THROTTLE			143-0316	1	1	Gas-Gasoline Carburetor
	143-0203	1	Standard	7	143-0208	1	Screw and Gasket, Bowl
	143-0234	1	Spec B through P				
	143-0203	1	Spec A Only				

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
8	143-0015	1	1 Gasket, Fuel Inlet Valve ("")
9	143-0209	1	1 Gasket, Bowl Screw ("")
10	FLOAT AND LEVER		
	143-0105	1	For Gasoline Carburetor - Spec A through D
	143-0297	1	For Gasoline Carburetor - Spec E through P
	143-0297	1	For Optional Gas-Gasoline Carburetor
	143-0105	1	Float and Lever (Not Used on Gas Only Carburetor)
11	143-0210	1	1 Bowl
12	143-0077	1	1 Gasket, Bowl Ring ("")
13	143-0212	1	1 Pin, Float, Lever (Not Used on Gas Only Carburetor) (\$†**)
14	143-0341	1	1 Valve, Fuel Inlet (Not Used on Gas Only Carburetor) (\$†**)
15	SCREW, IDLE ADJUSTMENT		
	143-0213	1	For Gasoline Carburetor (Spec A through D)
	143-0299	1	Spec E through P (Gasoline Carburetor)
	143-0213	1	Located 45° from Vertical (Gas-Gasoline Carburetors)
	143-0299	1	Located top of Carburetor (Gas-Gasoline Carburetors)
	143-0213	1	For Gas Only Carburetor
	143-0213	1	Gas-Gasoline Carburetor (NOTE: Quantity is 2 for Gas-Gasoline Carburetor)

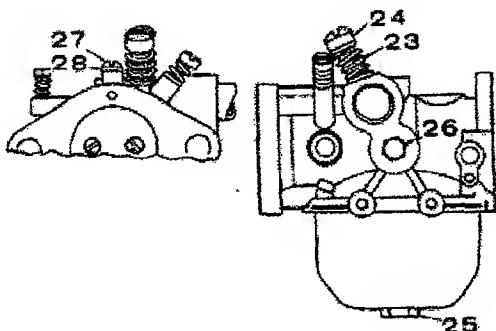
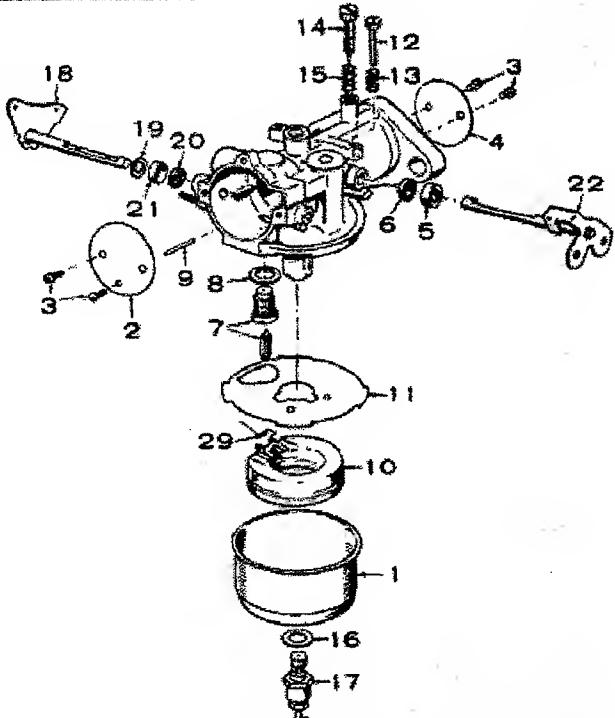
REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
16	812-0014	4	4 Screw, Round Head (#3-48 x 3/16") Choke and Throttle Valve Attaching (\$†**)
17	143-0110	1	1 Plug, Welsh
18	143-0214	1	1 Spring, Throttle Lever Adjustment Screw
19	143-0112	1	1 Spring, Idle Adjustment Screw
20	143-0114	1	1 Spring, High Speed Adjustment Needle
21	143-0215	1	1 Screw, Throttle Lever Adjusting
24	145-0308	1	1 Tube, Gas Inlet - For Gas and Gas-Gasoline Carburetor Only
25	145-0309	1	1 Needle, Gas Adjustment - For Gas and Gas-Gasoline Carburetor Only
26	148-0010	1	1 Spring, Gas Adjustment Needle - For Gas and Gas-Gasoline Carburetor Only
27	143-0231	1	1 Wire, Choke Lock - For Gas- Gasoline Carburetor Only
28	505-0008	1	1 Plug, Pipe (1/8") - For Gas Carburetor Only
29	854-0003	4	4 Washer, Lock - Valve Plate (\$†)

\* - Contained in 143-0281 Gasket Kit.

\*\* - Contained in 143-0201 Repair Kit.

† - Contained in 143-0298 Repair Kit.

§ - Contained in 143-0200 Repair Kit.



**CARBURETOR (ZENITH) PARTS GROUP - (REPLACEMENT FOR CARTER)**  
**BEGIN SPEC R**      NOTE: See separate group for Carter Carburetor  
 parts. Spec A through Q.

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
<b>CARBURETOR, GASOLINE</b>							
	141-0693	1	Manual Choke	10	141-0702	1	Float Assembly (Not used on Gas only Units)
	141-0686	1	Manual Choke	11	141-0701	1	1 † Gasket, Bowl to Body
	141-0692	1	Electric Choke	12	141-0700	1	1 Screw, Throttle Stop
	141-0685	1	Electric Choke	13	141-0711	1	1 Spring, Throttle Stop
<b>CARBURETOR, GAS-GASOLINE (Optional)</b>							
	141-0717	1	Manual Choke	14	NEEDLE, IDLE ADJUSTING		
	141-0719	1	Manual Choke	141-0713	1	1 Gasoline and Gas only Units	
	141-0718	1	Electric Choke	141-0713	2	2 Gas and Gasoline Units	
	141-0720	1	Electric Choke	15	SPRING, IDLE NEEDLE		
	141-0726	1	Carburetor, Gas Only (Optional)	141-0710	1	1 Gasoline and Gas only Units	
	141-0725	1	Carburetor, Gas Only (Optional)	141-0710	2	2 Gas-Gasoline Units	
	141-0747	1	Repair Kit (Includes Parts Marked †)	16	141-0707	1	1 †Washer, Main Jet Assembly
	141-0748	1	Gasket Kit (Includes Parts Marked †)	17	141-0712	1	1 Jet Assembly, Main (Adjustable) Not used on Gas only Units
	141-0281	1	1 †Gasket, Carburetor Flange	18	SHAFT, CHOKE		
1	141-0708	1	Bowl, Fuel	141-0742	1	1 Manual Choke Units	
2	141-0741	1	Plate, Choke (Not used on Gas Only Units) - Manual Choke	141-0679	1	1 Electric Choke Gasoline Units	
2	141-0861	1	1 Plate, Choke (Not Used on Gas Only Units) - Electric Choke	141-0716	1	1 Electric Choke Gas-Gasoline Units	
3	141-0698	4	4 Screw and Washer, Choke and Throttle Plate Mounting (2 used on Gas only units)	19	141-0699	1	1 Washer, Manual Choke Units
4	141-0792	1	1 Plate, Throttle	20	141-0697	1	1 †Seal, Felt - Manual Choke Units
4	141-0706	1	1 Plate, Throttle (Straight Gas)	21	141-0203	1	1 †Retainer, Felt Seal - Manual Choke Units
5	141-0705	1	1 †Retainer, Seal	22	141-0709	1	1 Shaft and Lever, Throttle
6	141-0661	1	1 †Seal, Rubber	22	141-0735	1	1 Shaft and Lever, Throttle
7	141-0798	1	1 †Valve Seat Assembly, Fuel (Not used on Gas only Units)	23	141-0733	1	1 †Spring, Main Gas Needle - Gas and Gas-Gasoline Units
8	141-0696	1	1 Washer, Fuel Valve Seat (Not used on Gas only Units)	24	141-0734	1	1 Needle, Main Gas Adjusting - Gas and Gas-Gasoline Units
9	141-0700	1	1 Shaft, Float (Not used on Gas only Units)	25	141-0736	1	1 Nut, Bowl - Gas only Units
				26	141-0737	1	1 Plug, Pipe (1/8") - Gas Only Units
				27	141-0738	1	1 Screw (#10-32) - Gas Only Units
				28	141-0739	1	1 Washer, Gas Only Units
				29	141-0799	1	1 †Spring, Float

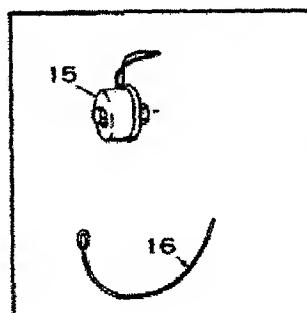
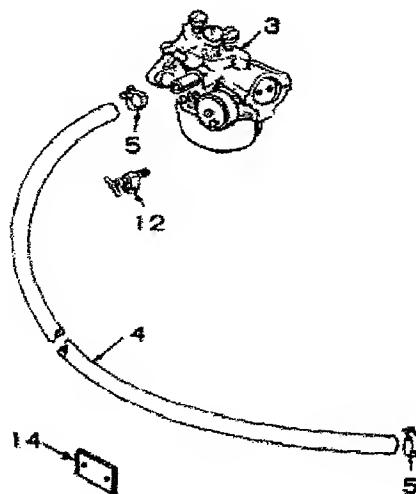
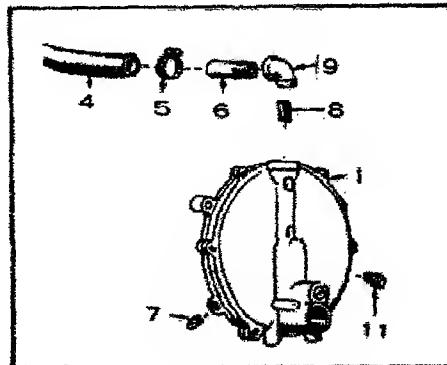
\* - Contained in Repair Kit.

† - Contained in Gasket Kit.

**OPTIONAL FUEL SYSTEM GROUP  
(GAS AND COMBINATION GAS-GASOLINE)**

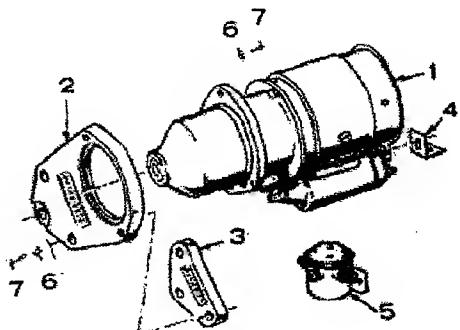
REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
1	148-0311	1	Regulator, Gas (Garretson Manufacturer)
3	*CARBURETOR, GAS-GASOLINE		
	148-0961	1	Manual Start Engines - Spec A through Q
	141-0717	1	Manual Start Engines - Begin Spec R
	141-0760	1	Electric Start Engines - Spec A through Q
	141-0718	1	Electric Start Engines - Begin Spec R
	141-0755	1	Manual Start Engines - Spec A through Q
	141-0719	1	Manual Start Engines - Begin Spec R
	141-0758	1	Electric Start Engines - Spec A through Q
	141-0720	1	Electric Start Engines - Begin Spec R
3	*CARBURETOR, GAS		
	141-0764	1	Spec A through Q
	141-0726	1	Begin Spec R
	141-0757	1	Spec A through Q
	141-0725	1	Begin Spec R
4	503-0159	1	Hose, Regulator to Carburetor
5	503-0032	2	Clamp, Hose
6	148-0519	1	Connector, Hose
7	505-0057	1	Plug (1/8"), Regulator
8	505-0101	1	Nipple (3/8 x 1"), Regulator Outlet
9	505-0039	1	Elbow, (3/8"), Regulator Outlet
	505-0120	1	Elbow, (3/8"), Regulator Outlet
11	148-0107	1	Vent, Regulator
12	504-0007	1	Valve, Shut-off (Fuel Pump Inlet)
14	149-0638	1	Plate, Fuel Pump Hole - Crankcase (Gas Fuel Engines)
15	307-0615	1	Primer Assembly, Solenoid (Used on some early models using Algas Regulator)
16	143-0231	1	Wire Choke Stop - Gas- Gasoline, Electric Choke Engines

\* - See separate group for Components and Gasket Kit.



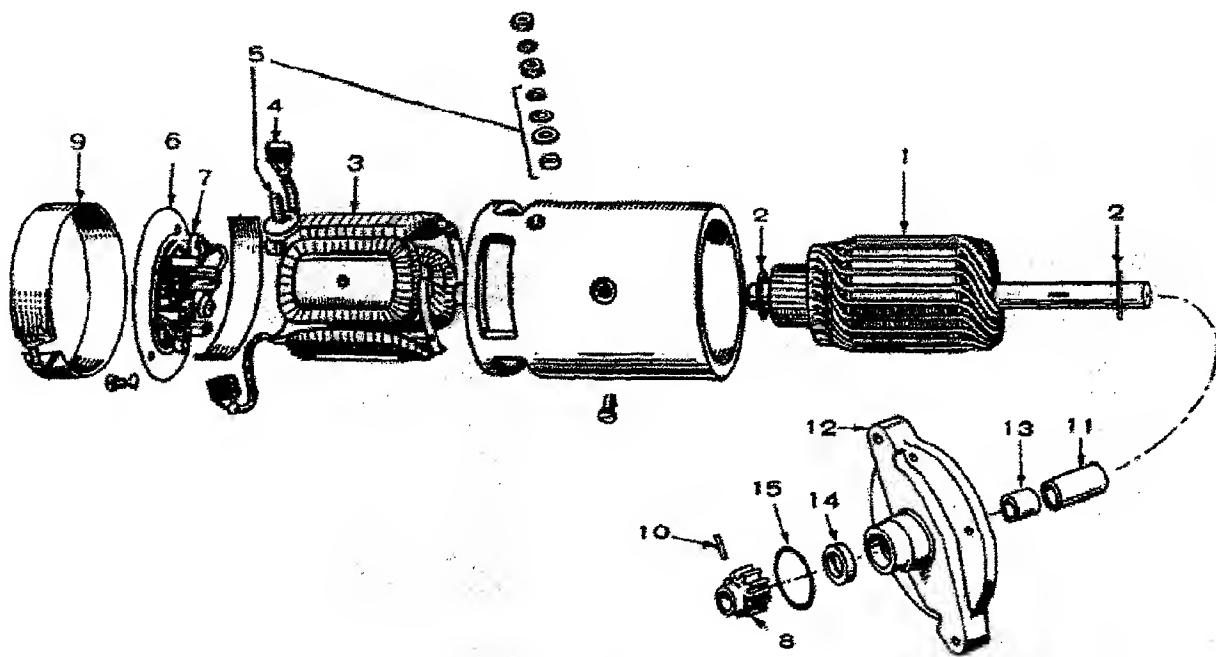
## AUTOMOTIVE STARTER GROUP

NOTE: This group applies to electric start engines.  
 NOTE: See separate group for Auto Cycle (Continuously engaged) Starter System.



REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
1	191-0427	1	1	1	Motor, Start (12 Volt) Bendix
1	191-0324	1	1	1	Motor, Start (12 Volt) Solenoid Shift - Optional
2	191-0512	1	1	1	Flange, Mounting
3	191-0311	1	1	1	Spacer, Flange
4	191-0320	1	1	1	Bracket, Support, Rear
5	307-1046	1	1	1	Solenoid (12 Volt) - Optional
6	WASHER, LOCK				
	850-0050	2	2	2	Starter to Flange
	850-0050	3	3	3	Flange Mounting
7	SCREW, HEX HEAD				
	800-0051	2	2	2	Starter to Flange
	800-0054	3	3	3	Flange Mounting
	191-0432	1	1	1	Clutch, Starter (For 191-0324)
	191-0433	1	1	1	Solenoid, Starter Switch (For 191-0324)
	191-0434	1	1	1	Brush Set, Starter (For 191-0324)
	191-0712	1	1	1	Armature (For 191-0324)
	191-0497	1	1	1	Bearing, Drive End (For 191-0324)

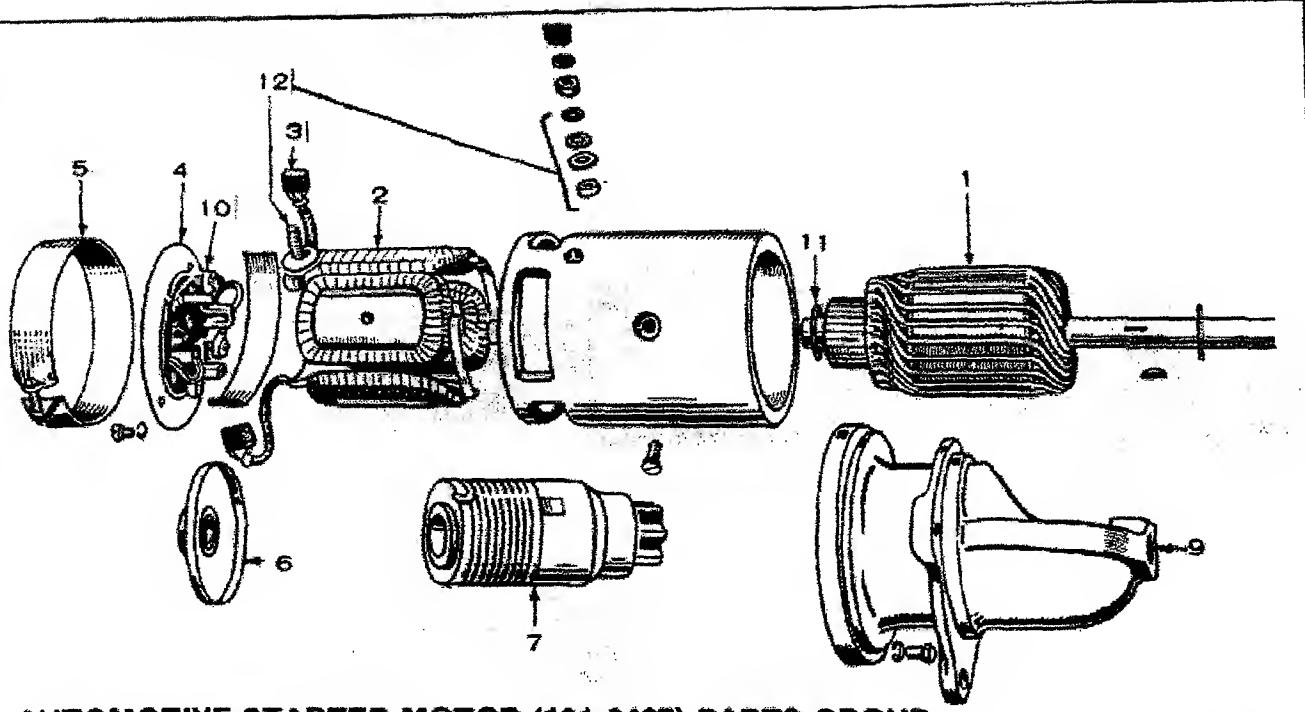
-- See separate group for components.



**12 VOLT AUTO CYCLE STARTER MOTOR (191-0453)  
PARTS GROUP (OPTIONAL EQUIPMENT)**

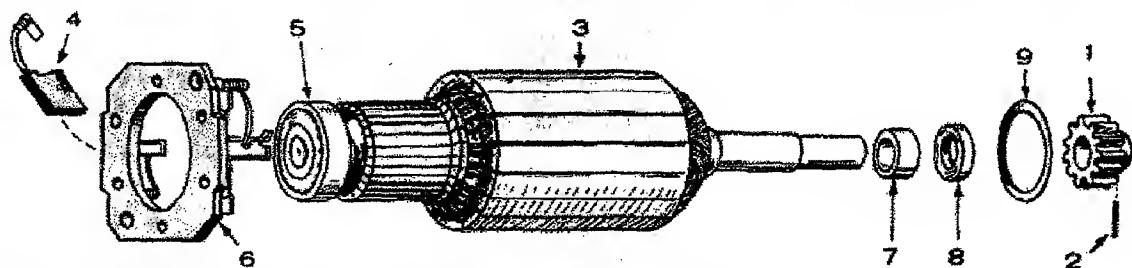
REF. NO.	PART NO.	QTY.		PART DESCRIPTION
		B	C	
191-0453		1	1	Motor, Starter - 12 Volt - Includes Pinion Gear and Pin
1 191-0452		1	1	Armature
2 191-1021		1	1	Washer, Armature Thrust (Pkg)
3 191-1017		1	1	Coil Assembly, Package, Field
4 191-0513		1	1	Brush Set, Service
5 191-1022		1	1	Stud, Terminal (Pkg)
6 191-1018		1	1	Head Assembly, Commutator End
7 191-1020		1	1	Spring, Brush (Set of 4)
8 191-0450		1	1	Gear, Pinion - Starter
9		1	1	Band, Cover - Not Sold Separately
10 516-0154		1	1	Pin, Dowel - Pinion Gear
11 191-0451		1	1	Spacer, Armature to Adapter
12 191-0448		1	1	Adapter
13 191-0329		1	1	Bushing, Adapter
14 509-0092		1	1	Seal, Oil - Armature Shaft - Front
15 509-0093		1	1	Seal, "O" Ring - Starter Motor Mounting

**NOTE: See Separate group for 115 Volt Auto Cycle  
Starter Motor 191-0416 Parts.**



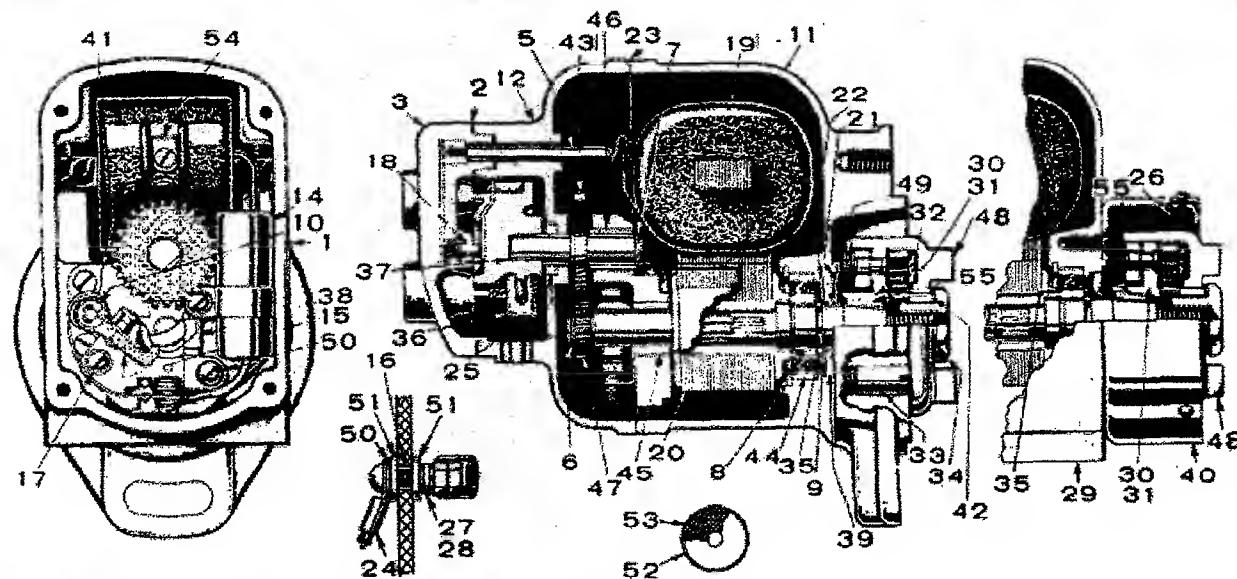
### AUTOMOTIVE STARTER MOTOR (191-0427) PARTS GROUP

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
191-0427	1	1	Motor Assembly, Starting	6	191-1019	1	Bearing Assembly, Intermediate
1 191-0517	1	1	Armature	7	191-0271	1	Drive Assembly, Bendix
2 191-1017	1	1	Coil Assembly Package - Field	8	191-0735	1	Bearing, Drive End
3 191-0513	1	1	Brush Set, Service	9	191-1020	1	Spring, Brush (Set of 4)
4 191-1018	1	1	Head Assembly, Commutator Field	10	191-1021	1	Washer, Armature Thrust (Package)
5	1	1	Band, Cover (Not Sold Separately)	11	191-1022	1	Stud, Terminal (Package)



### 115 VOLT AUTO CYCLE STARTER MOTOR (191-0416) PARTS GROUP (OPTIONAL EQUIPMENT)

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C			B	C
191-0416	1	1	Motor, Starter - 115 Volt - Includes Pinion Gear and Pin - Illustrated in Auto Cycle Starter Group	5	191-0420	1	Bearing, Ball - Armature Shaft Rear
1 191-0336	1	1	Gear, Pinion - Starter	6	191-0421	1	Holder Assembly, Brush
2 516-0150	1	1	Pin, Starter Pinion Gear	7	191-0329	1	Bushing, Armature Shaft Front
3 191-0418	1	1	Armature	8	509-0092	1	Seal, Oil - Armature Shaft Front
4 191-0419	2	2	Brush	9	509-0093	1	Seal, "O" Ring - Starter Motor Mounting

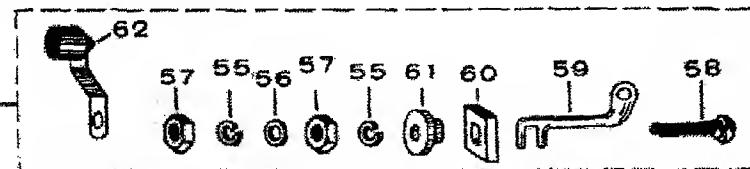
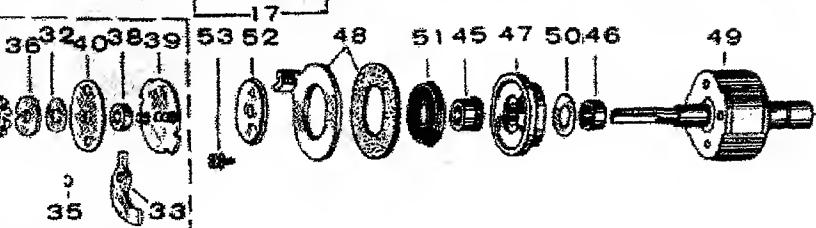
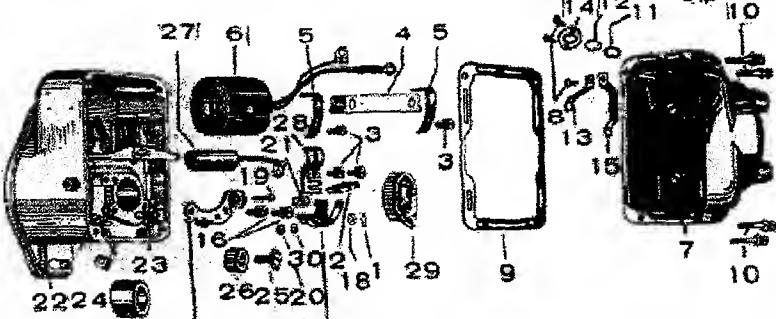


## MAGNETO PARTS GROUP - BEGIN SPEC R

NOTE: See separate group Spec A through Q.

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
161-0252		1			Magneto Assembly - Includes Gear	41	(F)X4631	1			Bearing Support
1 (F)A195		1			Nameplate	42	(F)B5931B	1			Coupling Nut Washer
2 (F)B682		1			End Cap Cover Gasket	43	(F)Y5939	1			Distributor Shaft and Gear Assembly
3 (F)C800		1			End Cap Cover	44	161-0071	1			Drive End Bearing
5 (F)J983A		1			High Tension Lead Rod	45	(F)A5950A	1			Cam End Bearing
6 (F)D1498		1			Rotor Gear Snap Ring	46	161-0073	1			Distributor Bearing
7 (F)G1498		1			Distributor Shaft Snap Ring	47	(F)Q5952	1			Rotor Gear
8 (F)B1498B		1			Drive End Bearing Snap Ring	48	(F)TZ5957	1			Coupling Shell - Flange Mounting
9 (F)B1498D		1			Rotor Shaft Snap Ring	49	(F)T5963	1			Pawl Spring - Flange Mounting
10 (F)G1498G		1			Fulcrum Pin Snap Ring	50	(F)B5969	1			Contact Screw Plate Washer
11 (F)FX2425		1			Housing - Flange Mounting	51	(F)C8018	2			Switch Insulating Washer
12 (F)R2430C		1			End Cap	52	161-0219	2			Vent Cover
14 161-0182		1			Condenser	53	161-0221	2			Vent Screen
15 161-0166		1			Breaker Point Set	54	(F)D6120	1			Coll Clip
16 (F)K2457A		1			Ground Switch Screw Bushing	55	S15-0001	1			Key
17 (F)D2458		1			Contact Screw Plate		(F)859D	2			Screw, End Cap Cover (#8-32 x 9/16")
					Washer - #6		(F)10S14D	4			Screw, End Cap (#10-24 x 7/8")
18 (F)E2460B		1			Center Brush and Spring		161-0224	1			Screw, Condenser (#8-32 x 1/4")
19 161-0029		1			Coil		(F)6S6Z	1			Screw, Terminal Bucher (#6-32 x 3/8")
20 (F)HW2480		1			Magnetic Rotor		161-0225	1			Screw, Contact Support (#6-32 x 3/8")
21 161-0128		1			Drive End Seal Outer Washer		(F)8S6U	1			Screw, Contact Support (#8-32 x 3/8")
22 (F)A2492C		1			Drive End Seal Inner Washer		161-0126	1			Washer, Lock - Ground Switch
23 (F)H2498		1			End Cap to Housing Gasket		(F)8N1	3			Nut, Ground Switch Screw
24 (F)J2499A		1			Primary Terminal Wire Assembly		(F)25S12G	2			Screw, Base Plate (1/4-20 x 3/4")
25 (F)G2501		1			Distributor Shaft Seal		(F)25S6G	4			Screw, Outer Shell Coupling (1/4-20 x 3/8")
26 (F)D2502		1			Outer Shell Flat Washer - FM-X4A		814-0077	4			Screw, Bearing Support (#8-32 x 3/8")
27 (F)M2514		1			Ground Switch Lever		161-0223	2			Screw, Cover (#6-32 x 1/4")
28 (F)L2514C		1			Ground Switch Complete		(F)6S3W	1			Screw, Coll Clip (#6-32 x 3/16")
29 (F)A2561A		1			Base Plate - Type FM-X4A						
30 (F)S2563		1			Coupling Hub Assembly						
31 (F)BS2563C		1			Coupling Complete						
32 (F)E2565		1			Coupling Drive Spring						
33 (F)S2568		1			Pawl Stop Pin						
34 (F)M2570		1			Coupling Nut						
35 (F)C2723		2			Drive End Bearing Shim						
36 (F)DX2765		1			Distributor Rotor						
37 (F)A2766		1			Distributor Rotor Spring Clip						
38 (F)G2788		1			Cam Wick and Holder						
39 161-0062		1			Drive End Seal						
40 (F)C4591		1			Coupling Outer Shell						

NOTE: Parts with Onan part numbers order from Onan. Order parts with Fairbanks (F) number from your nearest Fairbanks Morse dealer.



## MAGNETO PARTS GROUP - SPEC A THROUGH Q

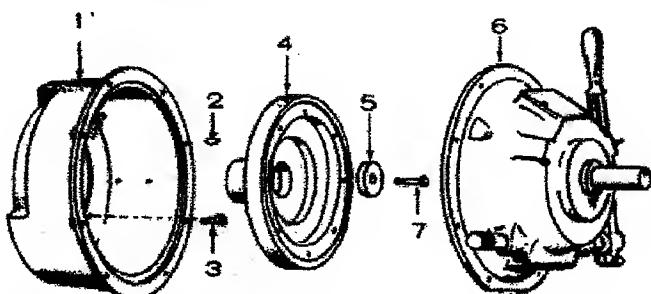
NOTE: See separate group beginning Spec R.

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION	REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
162-0242	1				Magneto, Complete	26	162-0250	1			Gear, Distributor (Wico #6855)
1 (Wico) 4210	1				Lock, Breather Arm	27	162-0227	1			Condenser (Wico #X6916)
2 (Wico) 5077	1				Wiper, Cam - Felt	28	(Wico) 6924	1			Clamp, Condenser
3 (Wico) 5411	4				Screw - (2) Condenser Clamp, (2) Coil Core Clamp	29	162-0251	1			Rotor, Distributor (Wico #9564)
4 162-0244	1				Core, Coil (Wico #X5524)	30	(Wico) 10407	1			Washer
5 (Wico) 5633	2				Clamp, Coil Core	31	162-0249	1			Coupling Assembly, Impulse (Wico #X6516)
6 162-0246	1				Coil (Wico #X5700 B)	32	(Wico) M-42XA	1			Washer, Flange Spacing
7 162-0248	1				Cap Assembly, Distributor (Wico #X5777)	33	(Wico) A-179X	2			Arm, Trip
8 (Wico) 5536	3				Screw, (1) Coil Contact (2) Window Clamp Plate	34	(Wico) 15-186	1			Spring, Drive
9 (Wico) 5618	1				Gasket, Distributor Cap	35	(Wico) A-243X	2			Ring, Snap - Impulse Coupling
10 (Wico) 5622	4				Screw and Lock Washer, Distributor Cap Mounting	36	(Wico) IVA-0583	1			Washer, Drive Cup Spacing
11 (Wico) 5719	1				Gasket, Window Seal	37	(Wico) 2061A	1			Cup, Drive
12 (Wico) 5753	1				Window	38	(Wico) 2122	1			Spacer, Driven Flange
13 (Wico) 5775	1				Spring, Coil Contact	39	(Wico) X2286	1			Flange Driven
14 (Wico) 5895	1				Plate, Window Clamp	40	(Wico) 2288	1			Retainer, Drive Spring
15 (Wico) X6001	1				Core, Coil (Wico #X5524)	41	(Wico) 6412	1			Nut, Lock - Impulse
16 (Wico) 5900	2				Screw, Fixed Contact Clamp	42	162-0253	1			Ring, Lock - Impulse (Wico #6424)
17 162-0204	1				Point Set, Breaker (Wico #X5996)	43	162-0254	1			Washer, Thrust (Wico #6425)
18 (Wico) 3219	1				Washer, Breaker Point Aligning	44	160-0674	1			Gear, Drive
19 (Wico) 5431	1				Screw, Breaker Spring Clamp	45	(Wico) 5518	1			Spacer, Impulse
20 (Wico) 5717	1				Washer, Breaker Point Aligning	46	(Wico) 5520	1			Spacer, Bearing Cage
21 (Wico) 7644	1				Felt, Breaker Arm	47	162-0243	1			Bearing and Cage Assembly, (Wico #X5521)
22 (Wico) X6196	1				Housing Assembly	(Wico) 5516	1			Ring, Retaining - Rotor Bearing (Included in 162-0243 Assembly)	
23 (Wico) 5603	1				Pivot, Breaker Arm	(Wico) 5517	1			Bearing, Rotor (Included in 162-0243 Assembly)	
24 (Wico) 5610	1				Bushing, Breaker Plate	(Wico) 5567	1			Cage, Rotor Bearing (Included in 162-0243 Assembly)	
25 (Wico) 6466	1				Screw and Washer, Distributor Gear	48	162-0245	1			Plate and Gasket, Impulse Stop (Wico #X5540)

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	
			B	C
49	162-0247	1	Rotor (Wico #Y5710)	
50	(Wico) 5926	1	Shield, Ball Bearing	
51	(Wico) 6199	1	Seal, Oil	
52	(Wico) 6204	1	Slinger, Oil	
53	(Wico) 6465	4	Screw and Lockwasher, Impulse Stop Clamp	
54	(Wico) X5654	1	Connection Assembly, Ground	
55	(Wico) M-55XA	2	Washer, Lock - Ground Stud	
56	(Wico) 1XA-256	1	Washer, Ground Stud	
57	(Wico) 3230	2	Nut, Ground Stud	

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	
			B	C
58	(Wico) 3945	1	Stud, Ground	
59	(Wico) 5635	1	Connector, Ground	
60	(Wico) 8820	1	Lock, Insulating - Ground Stud	
61	(Wico) 11874	1	Insulator, Ground Stud	
62	(Wico) X5632	1	Button, Stop	

NOTE: Parts having Wico number, order from your nearest Wico Dealer, giving Part Number and Complete Description. Parts having Onan number, order from Onan.

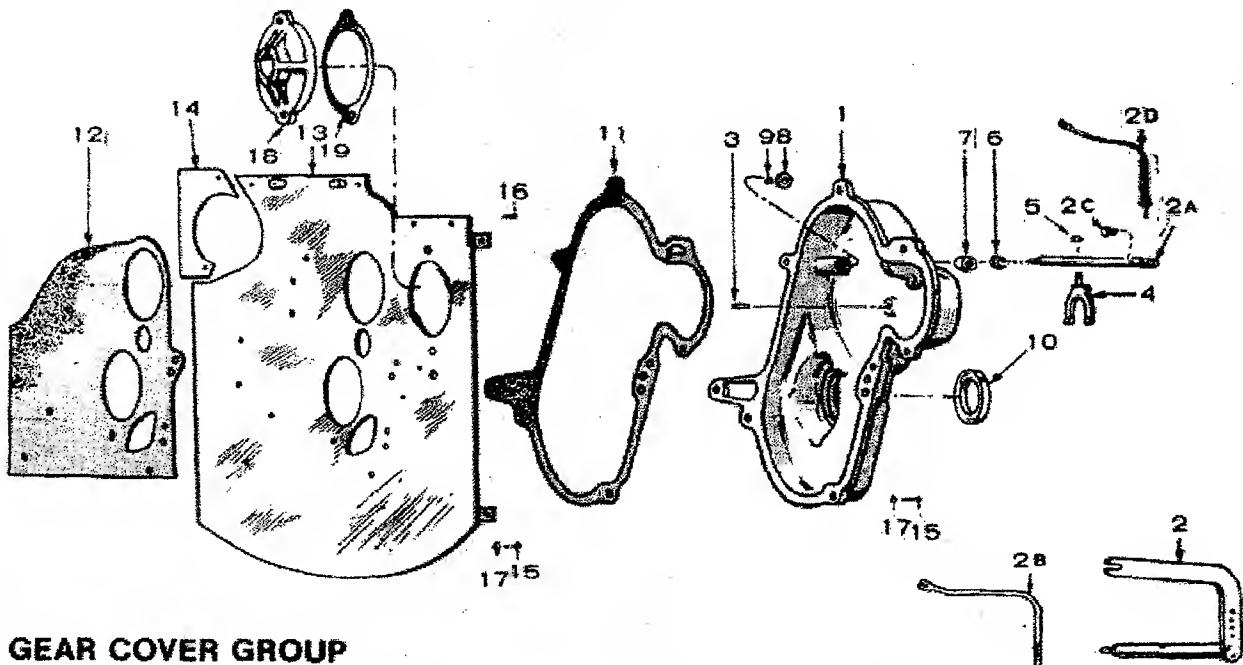


#### ROCKFORD CLUTCH GROUP (OPTIONAL EQUIPMENT)

REF. NO.	PART NO.	QTY.	PART DESCRIPTION	
			B	C
1	190-0251	1	1	Housing, Clutch
2	516-0006	1	1	Key, Clutch
3	805-0019	4	4	Bolt Place (3/8-16 x 1-1/4")
4	190-0252	1	1	Flange, to Adapt Rockford Clutch
4	190-0253	1	1	Flange, to Adapt Twin Disc Clutch
5	190-0254	1	1	Washer, Flat
6	190-0258	1	1	*Clutch Assembly (Rockford)
7	800-0074	1	1	Screw, Hex Cap
8	190-0325	1	1	**Clutch Assembly (Twin Disc)

\* - For Components contact your nearest Rockford Clutch Dealer, Borg Warner Corporation - Rockford, Illinois, 61106.

\*\* - For Components contact your nearest Twin Disc Clutch Dealer, Racine, Wisconsin 53403.



## GEAR COVER GROUP

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
<b>1 COVER ASSEMBLY, GEAR, COMPLETE - INCLUDES PARTS MARKED *</b>			
103-0277	1		Standard - Spec A through S (For Engines Spec A through C Also Order 103-0251 Gasket and 150-0840 Arm)
103-0366	1		Standard - Begin Spec T
103-0252	1	1	For Engines with Auto Cycle Starter Motor - Optional
103-0278	1	1	For Engine with One Spring Variable Speed Governor - Optional
103-0277	1		Standard - Spec A through S (For Engines Spec A thru C Also Order 103-0251 Gasket)
103-0366	1		Standard - Begin Spec T
2 150-0785	1		Arm & Shaft, Spec A thru C For Replacement Order 150-0838 Shaft, 150-0840 Arm and 815-0176 Screw
2A 150-0838	1		Shaft, Governor - Begin Spec D
2A 150-0838	1		Shaft, Governor
2A 150-0901	1	1	Shaft, Governor (For 103-0278 Cover only) - Optional
2B 150-0840	1		Arm, Governor Shaft to Carburetor - Spec D thru P
2B 150-0836	1		Arm, Governor Shaft to Carburetor - Spec A thru Q
2C 815-0176	1		Screw, Hex (8-32 x 1/2") - Begin Spec D
2C 815-0176	1		Screw, Hex (8-32 x 1/2")
2D ARM ASSEMBLY GOVERNOR - BEGIN SPEC A			
150-1093	1		Standard
150-1102	1		Variable and Two Speed Governor
150-1091	1		Standard
150-1100	1		Variable and Two Speed Governor
3 516-0111	1	1	Pin, Roll, Governor Cup Stop
4 150-0777	1	1	Yoke, Governor
5 518-0129	1	1	Ring, Yoke
6 509-0088	1	1	Seal, Oil
7 510-0048	1	1	Bearing, 1/2" Governor Shaft

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
<b>8 510-0082</b>			
8	510-0082	1	1 "Bearing, For 1/4" Governor Shaft
<b>9 BEARING, BALL, GOVERNOR SHAFT THRUST</b>			
9	510-0014	1	1 3/16" Spec A through C and Also used on Optional 103-0252 Gear Cover
510-0043	1	1	5/16", Begin Spec D
10 509-0087	1	1	"Seal, Oil
<b>11 GASKET, GEAR COVER</b>			
103-0219	1	1	For Cast Iron Cover, Spec A through C
103-0251	1	1	For Die Cast Cover, Begin Spec D
103-0231	1	1	For Optional 103-0252 Gear Cover Assembly
12 103-0218	1	1	Gasket, Backplate
<b>13 BACKPLATE, GEAR COVER</b>			
103-0226	1	1	Manual Start Engines
103-0271	1	1	For Automotive Type Starter (To replace backplate on early models also order 134-1532 Baffle)
103-0225	1	1	For Engines with Auto Cycle Starting System
<b>14 134-1532</b>			
14	134-1532	1	1 Baffle, Gear Cover Backplate
<b>15 SCREW, HEX CAP 800-0028</b>			
15	SCREW, HEX CAP 800-0028	1	1 Gear Cover Mounting (5/16-18 x 1)
110-0879	4	4	1 Gear Cover Mounting (5/16-18 x 1-1/4)
800-0026	1	1	1 Gear Cover Backplate Mounting
16 815-0347	2	2	2 Screw, Gear Cover Backplate Mounting
<b>17 WASHER, LOCK 526-0115</b>			
17	WASHER, LOCK 526-0115	5	5 Gear Cover Mounting
850-0045	1	1	1 Gear Cover Backplate Mounting
18 103-0221	1	1	1 Cover, Gear Cover Backplate Opening
19 160-0721	1	1	1 Gasket, Backplate Opening Cover

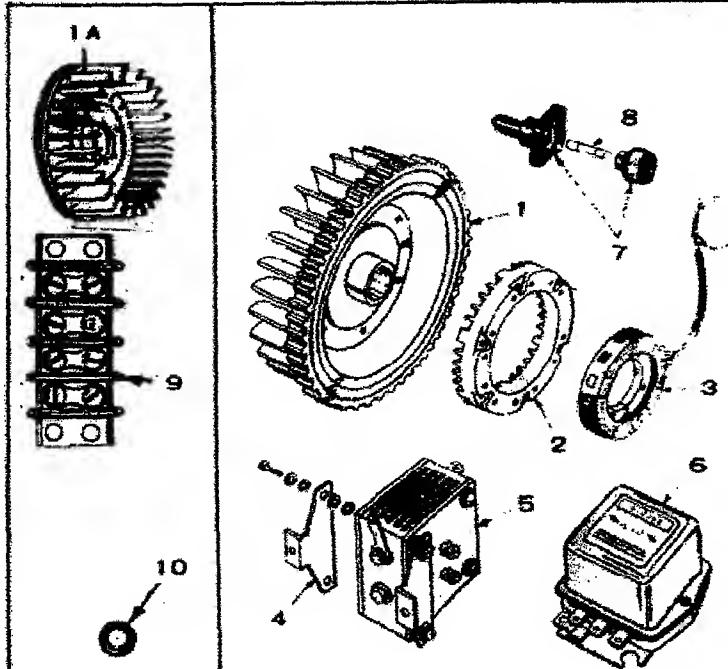
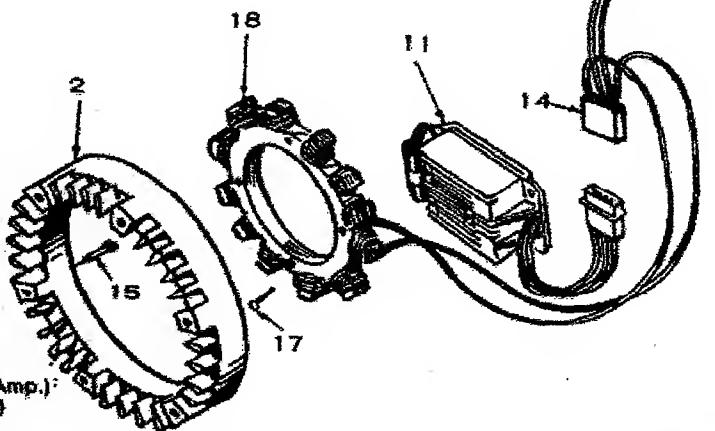
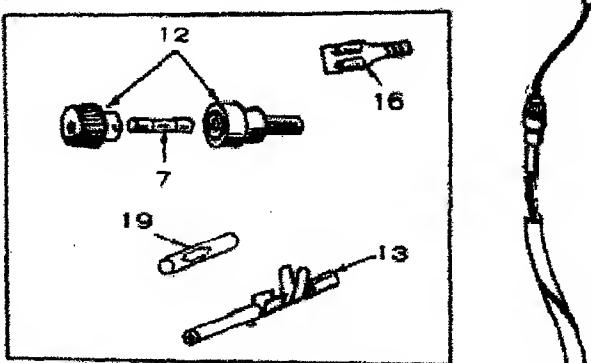
\* - Parts included in Gear Cover Assembly.

## CHARGING ALTERNATOR GROUP, 12-VOLT

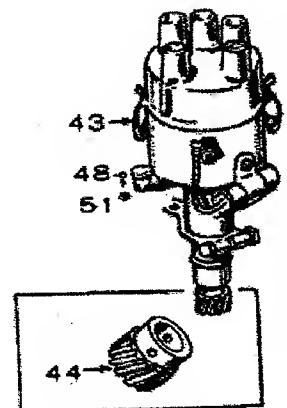
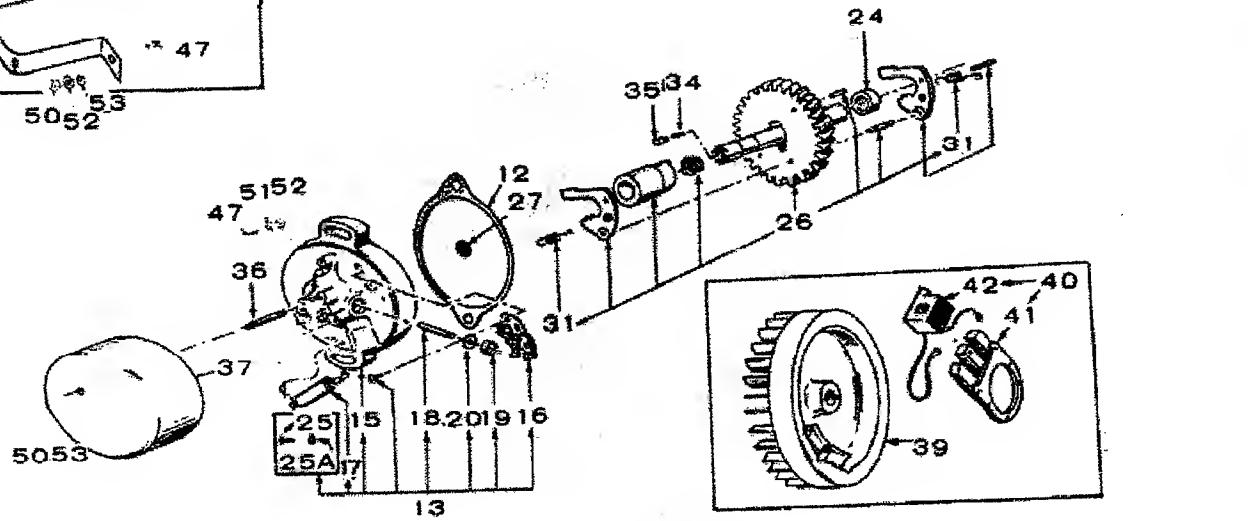
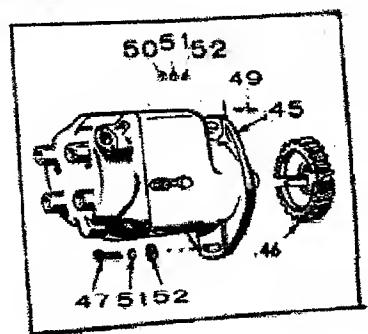
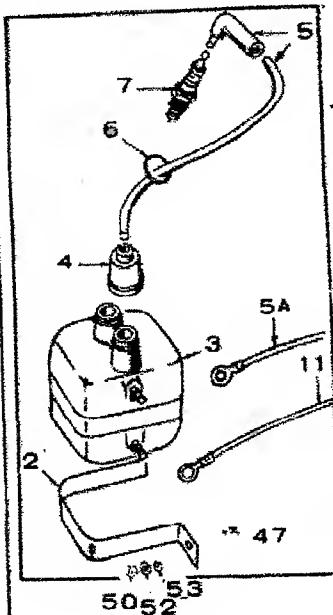
NOTE: See Separate Group Spec A through Q.

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
1	191-0403	1	Flywheel, Includes Ring Gear (Also listed in Crankshaft and Flywheel Group)
1A	134-1556	1	Flywheel, Includes Ring Gear (Also listed in Crankshaft and Flywheel Group)
2	191-0400	1	Rotor
3	STATOR ASSEMBLY	1	Spec A through S Begin Spec T - Includes Parts Marked *
	191-0509	1	Spec A through U
	191-0740	1	Begin Spec V - Includes Parts Marked *
4	BRACKET, RECTIFIER MOUNTING	2	Spec A through S
	305-0262	2	Spec A through U
5	RECTIFIER ASSEMBLY, INCLUDES MOUNTING BRACKETS	1	Spec A through S
	305-0267	1	Spec A through U
6	REGULATOR, VOLTAGE	1	Spec A through S
	305-0261	1	Spec A through U
7	HOLDER, FUSE	1	Spec A through S
	321-0103	1	Spec A through U
8	FUSE	1	Spec A through S
	321-0128	1	Spec A through T
	321-0128	1	Spec A through U (20 Amp.)
	321-0162	1	Spec A through V (30 Amp.)
9	BLOCK, TERMINAL (4 Place)	1	Spec A through S
	332-0537	1	Spec A through U
10	GROMMET, RUBBER - BLOWER HOUSING	1	Spec A through S
	508-0071	1	Spec A through U
11	REGULATOR, VOLTAGE	1	Begin Spec T
	305-0478	1	Begin Spec V
12	HOLDER, FUSE	1	Begin Spec T
	321-0165	1	Begin Spec V
13	*SOCKET, CONNECTOR	4	Begin Spec T
	323-0488	4	Begin Spec V
14	*CONNECTOR, SOCKET - HOUSING	1	Begin Spec T
	323-0759	1	Begin Spec V
15	812-0133	1	Screw, Rotor Mounting
16	*TERMINAL, CRIMP	1	Begin Spec T
	332-0529	1	Begin Spec V
17	813-0107	1	Screw, Stator Mounting
18	*STATOR ONLY	1	Begin Spec T
	191-0724	1	Begin Spec V
19	*CONNECTOR, FASTON	1	Begin Spec T
	332-0556	1	Begin Spec V

\* - Included in Stator Assembly.



## IGNITION GROUP



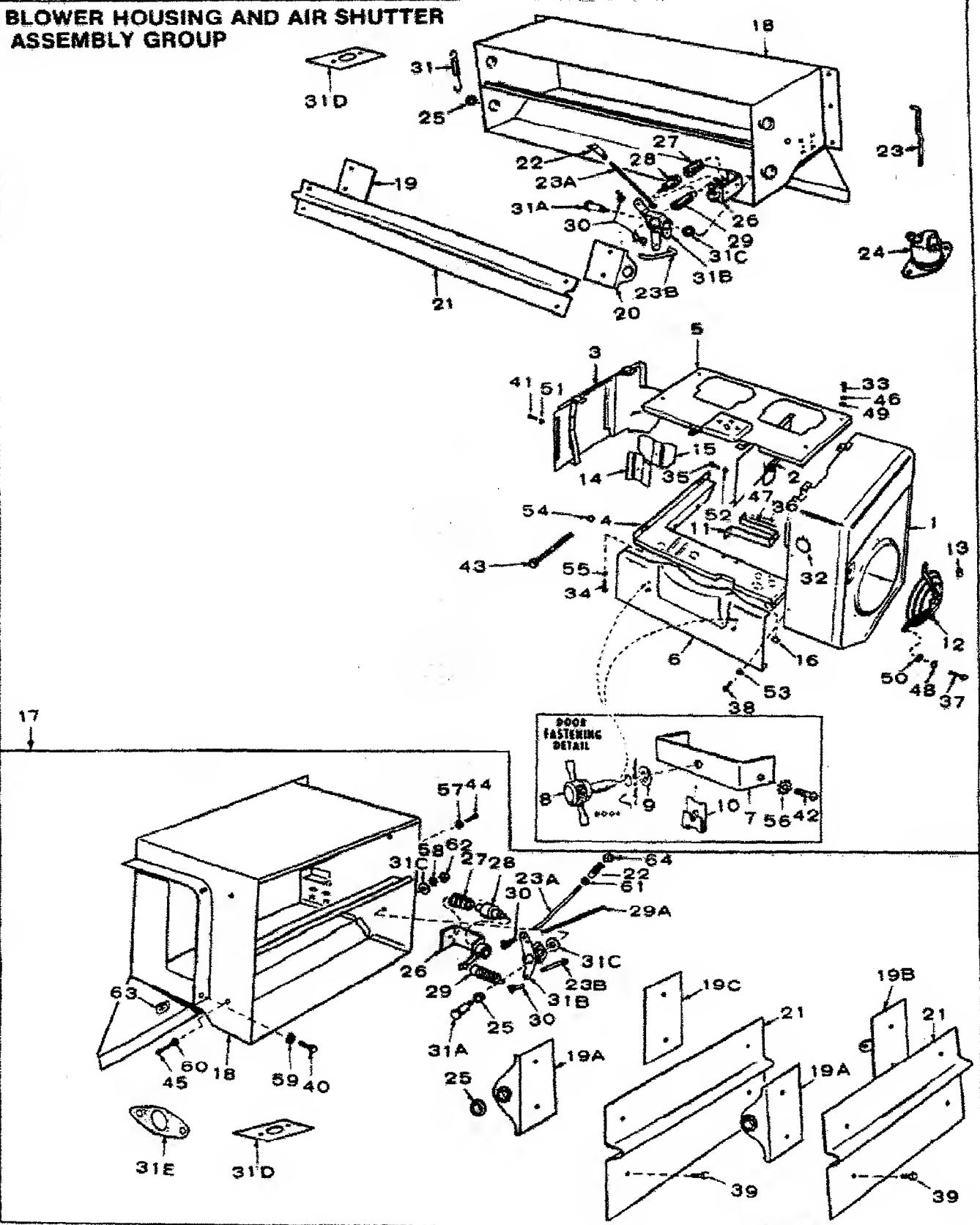
REF. NO.	PART NO.	QTY.	PART NO.	PART DESCRIPTION
		B	C	
1	166-0286	1		Screw, Coil Clamp (Battery Ignition) - Spec A thru S
2	CLAMP, IGNITION COIL - BATTERY IGNITION			
	166-0682	1		Spec A through S
	166-0556	1		Begin Spec T
	166-0279	1		All Models
3	COIL, IGNITION - BATTERY IGNITION			
	166-0792	1		Spec A through S
	166-0346	1		Begin Spec T
	166-0278	1		All Models
4	160-0558	2	6	Nipple, Rubber - Coil (Battery Ignition)
5	CABLE, SPARK PLUG			
	167-1384	2		26" Long (Magneto Ignition)
	167-1387	2		14-1/2" Long (Battery Ignition)
	167-1379	2		17" Long - Use with Optional Wico Magneto
	167-1396	2		22-1/2" Long (Magneto Ignition)
	167-1379	1		17" Long - (Magneto Ignition)
	167-1381	1		28-1/2" Long - (Magneto Ignition)
	167-1395	3		15-1/2" Long - (Battery Ignition)
	167-1399	1		25-1/2" Long - (Battery Ignition)
5A	167-1398	1		Cable, Coil to Distributor (Battery Ignition)
6	509-0018	1		Ring, "O" - Spark Plug Cables
7	167-0241	2	4	Plug, Spark
11	336-0179	1		Lead, Coil to Breaker Box (Battery Ignition)
11	336-0333	1		Lead, Coil to Distributor (Battery Ignition)
12	160-0721	1	1	Gasket, Breaker Plate Mounting
13	160-0762	1		Plate Assembly, Ignition Breaker
15	160-0891	1		Plate Only, Breaker
16	160-0002	1		Point Set, Breaker
17	312-0116	1		Condenser, Ignition
18	160-0716	1		Plunger, Ignition Breaker
19	160-0/17	1		Cup, Plunger Diaphragm
20	160-0718	1		Diaphragm, Ignition Plunger
24	160-0720	1		Spacer, Ignition Timing Control
25	517-0072	1		Screw, U-Drive - Breaker Plunger Hole
25A	509-0065	1		Seal, "O" Ring
26	160-0707	1		Control Assembly, Ignition Timing
27	160-0806	1		Disc, Thrust - Plunger Bearing
31	160-0711	2		Spring, Timing Weight
34	160-0773	1		Spring, Thrust Plunger
35	160-0774	1		Plunger, Thrust
36	520-0347	1		Stud, Ignition Plate Cover Mounting
37	160-0769	1		Cover, Ignition Plate - Includes Stop Button (Magneto Ignition)

REF. NO.	PART NO.	QTY.	PART NO.	PART DESCRIPTION
		B	C	
37	160-0719	1		Cover, Ignition Plate (Battery Ignition)
39	160-0692	1		Flywheel, With Magnets (Also Illustrated in Crank-shaft and Flywheel Group) (Magneto, Ignition)
40	160-0698	1		Backplate Assembly, Magneto - Includes Backplate, Pole Shoe, and Coil (Magneto Ignition)
41	160-0697	1		Backplate and Pole Shoe Assembly, Magneto (Magneto Ignition)
42	160-0693	1		Coil, Magneto (Magneto Ignition)
43	166-0307	1		*Distributor Assembly, Includes Drive Gear (Battery Ignition)
44	166-0303	1		Gear, Distributor Drive (Battery Ignition)
45	161-0252	1		*Magneto Assembly - Includes Drive Gear (Magneto Ignition)
45	162-0255	1		†Magneto Assembly - Includes Drive Gear - Optional (Wico XH-2D Spec XH-2677)
46	160-0674	1	1	Gear, Magneto Drive (Optional for 2-Cylinder Engine) (Magneto Ignition)
47	SCREW, HEX CAP			
	800-0052	2		Breaker Plate Mounting
	800-0051	1		Magneto Mounting
	800-0003	1		Coil Mounting
	800-0002	2		Coil Mounting
48	812-0148	1		Screw, Round Head - Distributor Mounting (Battery Ignition)
49	520-0119	1		Stud, Magneto Mounting
50	NUT, HEX			
	862-0003	1		Magneto Mounting
	860-0013	1	2	Coil Mounting
	865-0011	1		Breaker Plate Cover Mounting
51	WASHER, LOCK			
	850-0040	1		Distributor Mounting (Battery Ignition)
	850-0050	2		Magneto Mounting
	850-0050	2		Breaker Plate Mounting
52	WASHER, FLAT			
	526-0030	2		Magneto Mounting
	526-0026	2		Breaker Plate Mounting
	526-0015	1	2	Coil Mounting
53	WASHER, SHAKEPROOF			
	853-0013	1		Coil Mounting
	854-0014	2		Coil Mounting
	853-0008	1		Breaker Plate Cover Mounting

\* - See Separate Group for Components.

† - Order Components from your nearest Wico Dealer, giving description of part and Magneto number from Magneto nameplate.

**BLOWER HOUSING AND AIR SHUTTER  
ASSEMBLY GROUP**



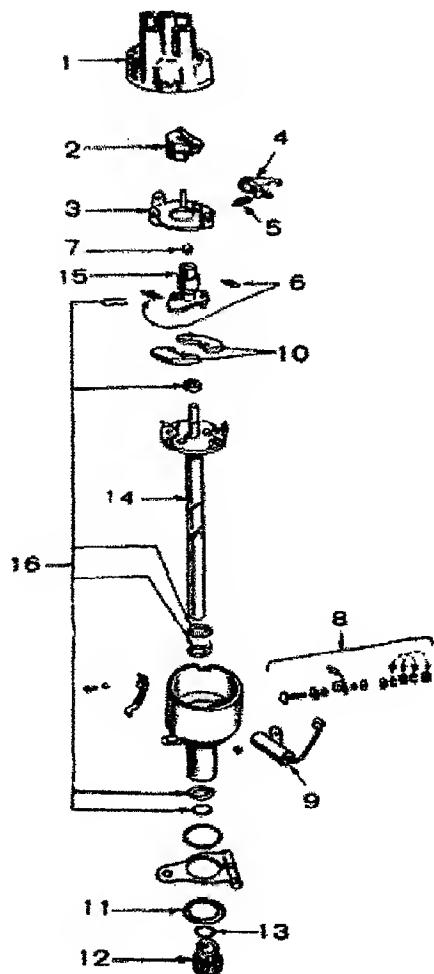
REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
1	HOUSING, BLOWER		
	134-1050	1	JB Engine Only
	134-1087	1	JC Engine Only
2	134-1048	1	Housing, Cylinder Air (Front)
3	HOUSING, CYLINDER AIR (Rear)		
	134-1051	1	Standard Engine
	134-1508	1	Engine with Factory Mounted Controls
4	PAN, CYLINDER AIR HOUSING (Bottom)		
	134-1419	1	JB Engine Only
	134-1418	1	JC Engine Only
5	COVER, CYLINDER AIR HOUSING		
	134-1121	1	Spec A Through Q
	134-1787	1	Begin Spec R
	134-1119	1	Spec A Only
	134-1201	1	Spec B Through P
	134-1794	1	Begin Spec R
6	PANEL, AIR HOUSING DOOR		
	134-1039	1	Spec A Through U
	134-1096	1	Spec A Only
	134-1202	1	Begin Spec B
7	BRACKET, AIR HOUSING DOOR		
	135-1554	1	JB Engine Only
	134-1089	1	JC Engine Only
8	134-1373	1	2 Screw, Door Panel
9	134-1180	2	4 Washer, Screw - Retainer (Early Models used 8 for Top Covers)
10	870-0194	5	6 Nut, Tinnerman, Door Panel Cover
11	SUPPORT, BLOWER HOUSING AND GRILLE		
	134-1085	1	JB Engine Only
	134-1088	1	JC Engine Only
12	134-1091	1	1 Grille
13	134-1092	3	3 Retainer, Grille
14	134-1097	1	Baffle, Center Cylinder (Carburetor Side)
15	134-1098	1	Baffle, Center Cylinder (Opposite Carburetor Side)
16	508-0002	2	2 Grommet, Rubber - (Blower Housing 9/16")
17	SHUTTER ASSEMBLY, AIR DISCHARGE (Optional) INCLUDES PARTS MARKED *		
	134-1811	1	JB Engine Only
	134-1810	1	JC Engine Only
18	DUCT ONLY, AIR OUTLET (NOTE: Cannot be used on Early Model Shutter Assembly with External Shutter Pivot Springs)		
	134-1804	1	JB Engines Only (*)
	134-1805	1	JC Engines Only (*)
19	BRACKET AND PIVOT ASSEMBLY, SHUTTER		
	134-1242	3	3 JB and JC Engines (E+)
	134-1242	2	JC Engines Only (#)
	134-1612	1	JC Engines Only (#)
19A	134-2411	2	2 JB and JC Engines (*)
19B	134-1802	1	1 JB and JC Engines (*)
19C	134-1801	1	1 JB and JC Engines (*)
20	134-1238	1	1 JB and JC Engines (E+)
20	134-1611	1	JC Engines Only (*)
21	SHUTTER, AIR OUTLET		
	134-1252	2	JB Engines Only (E)
	134-1807	2	JB Engines Only (*)
	134-1237	2	JC Engines Only (+)
	134-1614	2	JC Engines Only (#)
22	150-1358	1	1 Joint, Ball ('E+')
23	134-1247	1	1 Rod, Shutter Control (E+)
23A	134-1606	1	1 Rod, Shutter Control (Upper) (#)
23B	134-1607	1	1 Rod, Shutter Control (Lower) (#)
24	309-0162	1	1 Switch, Hi Temperature

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
25	BEARING, AIR SHUTTER		
	134-1248	4	4 JB and JC Engines (E+)
	134-1248	6	6 JC Engines Only (#)
	134-1783	4	4 JB and JC Engines (*)
	134-1248	2	2 JB and JC Engines (*)
26	BRACKET AND GUIDE, VERNATHERM		
	134-1244	1	1 JB and JC Engines (E+)
	134-1810	1	1 JB and JC Engines (#)
27	134-0656	1	1 Spring, Vernatherm Element ('E+')
28	309-0085	1	1 Element, Vernatherm ('E+')
29	134-0658	1	1 Spring, Shutter Return - Lower ('E+')
29A	134-1817	1	1 Spring, Shutter Return - Upper (*)
30	CLIP, ROD END		
	518-0004	1	1 Right Hand ('E+')
	518-0006	2	2 Left Hand (#)
31	134-1437	2	2 Spring, Shutter Pivot (External) ('E+')
31A	134-1605	1	1 Shaft, Actuating Arm (*)
31B	134-1604	1	1 Arm, Actuating (#)
31C	526-0045	1	1 Washer, Actuating Shaft (#)
31C	526-0213	1	1 Washer, Actuating Shaft (#)
31D	134-1375	1	1 Plate, Exhaust Outlet Cover (#)
31E	154-0738	1	1 Gasket, Exhaust Outlet (#)
32	517-0035	1	1 Plug, Dot Button - Governor Access
	SCREW, HEX HEAD CAP		
33	800-0004	4	4 Cylinder Air Housing Cover Mounting (1/4-20 x 5/8")
34	815-0235	2	2 Bottom Cylinder Air Housing Mounting (1/4-20 x 5/8")
35	815-0235	1	1 Front, Cylinder Air Housing Mounting (1/4-20 x 5/8")
36	800-0024	2	2 Blower Housing Support Mounting (5/16-18 x 1/2")
37	800-0007	3	3 Grille Mounting (1/4-20 x 1")
38	815-0235	6	6 Blower Housing Mounting (1/4-20 x 5/8")
39	815-0361	8	8 Shutter Mounting (Optional) (10-32 x 5/16") (*)
40	815-0235	3	3 Shutter Assembly Mounting (Optional) (1/4-20 x 5/8")
	SCREW, ROUND HEAD		
41	813-0097	2	2 Rear Air Housing Mounting (10-32 x 5/16")
42	813-0098	2	2 Air Housing Door Bracket Mounting (10-32 x 3/8")
43	812-0165	1	1 Center Baffle Mounting (1/4-20 x 4-1/2")
44	813-0097	2	2 Vernatherm Bracket and Guide Mounting (10-32 x 5/16") (Optional) (*)
45	812-0148	4	4 Bracket and Pivot Mounting (1/4-20 x 1/2") (Optional) (*)
	WASHER, LOCK		
46	850-0040	4	4 Cylinder Air Housing Cover Mounting (1/4")
47	850-0045	2	2 Blower Housing Support Mounting (5/16")
48	850-0040	3	3 Grille Mounting (1/4")
49	526-0021	4	4 Cylinder Air Housing Cover (1/4")
50	526-0115	3	3 Grille Mounting (5/16")
	WASHER, SHAKEPREOF		
51	854-0010	2	2 Rear Air Housing Mounting (#10 Internal)
52	853-0013	1	1 Front Air Housing Mounting (1/4" External)
53	854-0014	6	6 Blower Housing Mounting (1/4" Internal)
54	854-0014	1	1 Center Baffle Mounting (1/4" Internal)

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
55	854-0013	2	2 Bottom Air Housing Mounting (#12 Internal)
56	853-0008	2	2 Air Housing Door Bracket Mounting (#8 External)
57	853-0008	2	2 Vernatherm Bracket Mounting (#8 External) Optional (*)
58	853-0016	1	1 Actuator Bearing Mounting (5/16" External) Optional (*)
59	853-0013	3	3 Shutter Assembly Mounting (1/4" External) Optional (*)
60	856-0006	4	4 Bracket and Pivot Mounting (1/4" External Internal) Optional (*)
NUT, HEX			
61	870-0053	1	1 Ball Joint (10-32)
62	854-0002	1	1 Actuating Bearing Mounting (5/16-18) Optional (*)
63	870-0178	3	3 Speed Nut (1/4-20) Optional (*)
64	870-0131	1	1 Ball Joint (10-32) with External Tooth Lockwasher

REF. NO.	PART NO.	QTY.	PART DESCRIPTION
		B	C
* - Included in OPTIONAL Air Discharge Shutter Assembly. Used on late model engines (Internal Shutter Pivot Springs).			
£ - These parts apply to OPTIONAL Air Discharge Shutter Assembly (External Shutter Pivot Springs) used on 2 cylinder engines until the use of Shutter Assembly with internal shutter pivot springs.			
¤ - These parts apply to OPTIONAL Air Discharge Shutter Assembly (External Shutter Pivot Springs) used on 4 cylinder engines, Spec F until the use of Shutter Assembly with Internal Shutter Springs.			
+ - These parts apply to OPTIONAL Air Discharge Shutter Assembly (External Shutter Pivot Springs) used on 4 cylinder engines, prior to Spec F.			

## DISTRIBUTOR GROUP



REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
	166-0307	1			Distributor Assembly, Includes Gear
1	166-0235	1			Cap
2	166-0234	1			Rotor
3	166-0297	1			Plate, Breaker
4	166-0245	1			Point Set, Breaker
5	166-0061	1			Nut, Lock, Contact Screw
6	166-0606	1			Spring Set, Governor Weight
7	166-0607	1			Wick Package
8	166-0608	1			Terminal Stud and Parts Package
9	166-0310	1			Condenser
10	166-0609	1			Weight Set, Governor
11	509-0096	1			Seal, Base
12	166-0303	1			Gear, Drive
13	518-0216	1			Ring, Retaining
14	166-0610	1			Shaft, Drive
15	166-0611	1			Cam and Stop Plate
16	166-0612	1			Bearing & Parts Package

### SERVICE KITS AND MISCELLANEOUS

REF. NO.	PART NO.	QTY.	B	C	PART DESCRIPTION
98-1100	1	1			Decal Kit
168-0093	1				*Gasket Kit, Engine
168-0084	1				*Gasket Kit, Engine
522-0198	1				Overhaul Kit - Spec A through Q
522-0230	1				*Overhaul Kit - Begin Spec R
522-0196	1				*Overhaul Kit - (Magnetic Ignition) - Spec A through Q
522-0234	1				*Overhaul Kit - (Magnetic Ignition) - Begin Spec R
522-0199	1				*Overhaul Kit, (Battery Ignition) - Spec A through Q
522-0235	1				*Overhaul Kit - (Battery Ignition) - Begin Spec R
525-0137	1	1			Paint, Touch-up (Green Enamel) - 16 Ounce Pressurized Can

\* - Engines having optional continuously engaged "auto-cycle" starter, order also 168-0098 Supplementary Gasket Kit.

NOTE: For other Kits, refer to the group for the part in question.